

AMERICAN NURSERYMAN

The Nurseryman's Forte: To Make America More Beautiful and Fruitful

SEPTEMBER 1, 1940

SEP 4 1940

OREGON STATE COLL



Lonicera Thibetica

**National Shade Tree Conference
Soil as Rooting Medium for Cuttings
Making Nursery Advertising Pay
Southern Association Meets**

AMERICAN NURSERYMAN

F. R. KILNER, Editor

Editorial

TREE PROBLEMS.

Not merely the successful production of trees in the nursery, but their satisfactory performance in the customer's grounds as well, have become recognized as important to nurserymen. Those engaged in a landscape business have in many cases undertaken maintenance operations for their clients, in some instances including pruning, spraying and repairing shade trees. Consequently, such nurserymen have been attracted in increasing numbers to the annual Shade Tree Conference, originally composed of a group of men engaged in research on tree problems. The sixteenth in the annual series, held at Detroit last week, was even more notable than its predecessors in attendance by nurserymen. The commercial men have, indeed, their own organization, the National Arborists' Association, holding sessions in conjunction with the conference. It will be noted that several well known Michigan nurserymen served on the arrangements committees.

The report in this issue tells some of the good work that is being done, of which glimpses are given in the summaries of important papers presented. It is not unexpected, therefore, that demand develops for the annual printed proceedings of the conferences, giving the papers and discussions in full. The coöperation of research men and nurserymen is increasing the satisfaction which clients derive from their purchases of shade trees.

MAKE AN EARLY START.

You may not wish to advertise to your local public about autumn planting while the weather is still warm, but plans should be laid and copy prepared so that you are ready to make a mailing or insert copy in the local newspaper the moment you feel the time is ripe.

To put off the preparation of advertising copy and plans for its distribution until the time when it is seasonable means hurry, lack of care and, consequently, less effective re-

The Mirror of the Trade

sults. Your sales campaign for the season ahead should be mulled over at leisure, so that various angles and phases may be given due consideration. The bright ideas that make the best advertising copy do not come forth under pressure, but are the products of leisurely meditation. An early start gives the best opportunity for those mental processes.

RELAX TOLERANCES.

Relaxation of the tolerances for lead and arsenate on apples and pears shipped within the jurisdiction of the federal food and drug act was announced August 12, after three years of study by the public health service.

The new tolerances were set at one-twentieth grain of lead per pound and of one-fortieth grain of arsenate per pound in sprays. No change was made in the tolerance of one-fiftieth grain of fluorine per pound, as fluorine was not included in the investigation.

The investigation and new tolerances apply only to apples and pears and not to other food commodities.

F. H. A. LOANS FOR PLANTING.

With an eye toward stimulating new fall business, the building industry plans a drive this month to promote property modernization and repair, with the coöperation of the Federal Housing Administration. The drive, patterned after last summer's campaign, features convenient monthly payments on the F. H. A. plan of installment buying. Some nurserymen have developed small landscape orders by featuring F. H. A.-insured (title I) loans. Federal Housing Administration figures show that about 3,000,000 of these modernization loans have been made to date. That means something like \$1,100,000,000 worth of property improvement already financed on the F. H. A. plan. Applications for loans seem to be steadily rising and at present average about 10,000 a week.

The F. H. A. is again preparing literature and display material for the building trade. This is available at headquarters in Washington, or through the sixty-four field offices, about the middle of this month. The material includes a colorful window

display and an illustrated booklet with a check list for homeowners, printed in red and black. A mimeographed piece will describe how to develop and handle business under the "property improvement credit plan," title I of the national housing act. It is a brief merchandising manual suggesting means by which contractors may increase their sales through the F. H. A. plan of installment payments.

The average insured loan for home modernization amounts to about \$400, which costs the prospect \$12.78 a month.

The cost of both labor and equipment may be covered by the loan. This may include landscaping the home just as much as repairs, remodeling and decorating.

PUBLICATIONS ON TURF.

The United States Golf Association Green Section recently began to publish "Timely Turf Topics" in answer to the demand from many of those interested in growing grass for turf purposes for frequent, practical, timely suggestions and reminders. There are to be approximately twenty-five multilithed pages a year, which will serve as a supplement to "Turf Culture."

The latter is a semitechnical magazine published semiannually in the interest of better turf for golf courses, recreation fields, lawns, parks and cemeteries. In it are presented some of the most significant results of the scientific investigations of turf conducted by the United States Golf Association Green Section in collaboration with the United States Department of Agriculture. Both are published on a nonprofit basis and do not carry any advertising.

FASTIGIATE trees in a dozen genera are the subject of brief comments in the August issue of the bulletin of popular information issued by the Morton Arboretum, Lisle, Ill.

THE business and equipment of the Chatto Tree Surgeons have been purchased by the Rose Valley Nurseries, Moylan-Rose Valley, Pa., reports Robert M. Saul. Business will be done under the latter title.

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"QUALITY OF INQUIRIES VERY HIGH"

Because subscriptions are accepted only from those who grow and sell nursery stock, the concentrated circulation of the American Nurseryman produces results high in dollars, at low rates, due to the caliber of the inquiries and the size of the sales.



"You might be interested in knowing that, while the total number of inquiries from the American Nurseryman magazine is comparatively small as compared with other magazines with larger circulations, the quality of the inquiries is very high, and that during the past year they increased 28 per cent over the previous year."—Mando S. Ariens, Ariens Co., Brillion, Wis., July 3, 1940.



National Shade Tree Conference

Sixteenth Annual Gathering Draws Many Nurserymen to Detroit to Hear Papers and Discussions on Care of Ornamental Trees Presented by Research Men in Group

The central location of the sixteenth National Shade Tree Conference, Detroit, Mich., attracted a large attendance of nurserymen, commercial arborists, park officials and research men from many institutions. Registration exceeded the 400 mark.

The program extended over four days, August 27 being devoted to registration and inspection of the trade exhibits in the morning and a trip through River Rouge and Wayne county parks development, as well as Greenfield Village, Henry Ford's museum at Dearborn, in the afternoon.

The trip made it possible to see some of the forestry work under the direction of C. Edmund Smith, superintendent of parks and boulevards of the city of Detroit, and J. M. Bennett, superintendent of parks and forestry for the Wayne county road commission in Detroit. In Wayne county since 1922 more than 80,000 trees and 125,000 shrubs have been planted on about 600 miles of roads, including over forty-eight miles of boulevards completely landscaped. All the plant material is purchased from nurseries on a basis of competitive bids. Over 1,200 acres of land comprising ten parks have been developed. The total personnel carrying on the work of roadside development and parks is about 200, under Mr. Bennett's direction.

The conference was called to order Wednesday morning, August 28, to hear the address of welcome by a representative of the mayor of Detroit, to which response was made by Karl Dressel, president of the conference.

The opening paper on "Raising the Standards of Tree Experts" was presented by Frank Hanbury, of the Hanbury Tree Expert Co., Peoria, Ill. He not only discussed the mal-practices of some so-called tree experts, but he suggested how the public might be better served and urged methods of publicity be used to accomplish that end. The talk, in fact, dealt with the ideals and purposes of the conference, the realization of which will enable tree owners to entrust their care in competent hands.

"Factors Contributing to the Costs of Shade Tree Preservation Practices," by W. S. Speed, Speed Tree Service, Columbus, O., gave members a more thorough conception of the things which affect their charges to customers. He stated that charges by small operators and large ones were not much different, because small overhead on the one hand offset large volume on the other.

In a short business session, L. C. Chadwick, secretary and treasurer, reported a net gain of about fifty members, a good financial position and important activities of the executive committee.

An address by W. J. Cameron, director of public relations of the Ford Motor Co., was of the inspirational type which has made him a speaker of nation-wide fame, with many references to the part trees have played in history, from biblical ages onward.

The afternoon was taken up with demonstrations of equipment at Belle Isle park, whether busses brought the members from the Book-Cadillac hotel for luncheon at the Belle Isle Casino. Sprayer demonstrations were by the John Bean Mfg. Co., Hardie Mfg. Co. and Friend Mfg. Co.; tree-moving equipment, by the Gar Wood Industries, Inc., Williams & Harvey, Inc., and Butts Tree Movers; tree trimmers' and surgeons' equipment, by American Florists' Supply Co., H. E. Muench, Permalawn Products Co. and Wachtel Supply Co.

In the evening a boat trip on the lake gave everybody a chance to get better acquainted and to enjoy the music and dancing.

Control of Chlorosis.

The morning session August 29 was opened with the paper of Keith K. Kreag, of the board of park commissioners, Lansing, Mich., on "Nature and Control of Shade Tree Chlorosis." So widely has this subject proved of interest and importance in recent years that this summary of the problems encountered in chlorosis research, mainly by actual field work, received much attention. Mr. Kreag touched on the various causes of

chlorosis in shade trees and discussed the various control measures, such as direct trunk injections, spraying the foliage with properly diluted iron sulphate, treating the soil with lacking necessary chemical elements and preservation by restricting environmental changes.

"Tree Wound Dressing," by Paul E. Tilford, of the Ohio agricultural experiment station, Wooster, was an outline of his efforts of some years to develop a wound dressing which would accomplish the desired purposes, while still harmless to the sensitive tissues of the inner bark and cambium layer. The usual paint and wood preservatives do not all meet the necessity for affording strong adhesive qualities with ample resiliency to the contraction and expansion, as well as the necessity of adhesion to wet surfaces. A proper wound dressing should not run in high temperatures, yet have sufficient viscosity for proper application in cold temperatures. Besides being weatherproof, it should contain certain fungicidal properties to prevent the entrance of destructive insects. Dr. Tilford's data on tests in that direction were most interesting.

"City Forestry Problems," discussed by Paul Sandahl, superintendent of parks at Des Moines, Ia., gave an insight into the particular tree problems on city streets and in parks.

"Some Troublesome Pests of Conifers," by Dr. J. S. Houser, of the Ohio experiment station, included the more important insects, including borers, sawflies and pine shoot moths, offering control measures for each.

"Diseases of Oaks and Verticillium Wilt of Woody Plants," was the subject treated by Dr. J. C. Carter, Illinois natural history survey, Urbana, who has been working on this phase of pathology for a number of years, doing much fine work in the subject. Being a slow grower and less adaptable than other trees to the many present-day environmental changes, the oak has become host to many diseases. Some new approaches to combating these diseases were offered by Dr. Carter, as well as help on the rap-

idly spreading vascular diseases, which include *verticillium* wilt, at present abundant in Detroit and southern Michigan.

Diseases of Shrubs.

"Diseases of Shubby Plants and Small Trees," was most interestingly discussed by Dr. P. P. Pirone, of the New Jersey agricultural experiment station, New Brunswick.

Diseases of shrubs cause less concern to tree men than do diseases of large trees for obvious reasons. Nevertheless, commercial arborists are often called to diagnose and treat those appearing on many shrubs used in foundation plantings or those used in conjunction with larger trees.

The one group of shrubs least understood by most tree men are the so-called ericaceous plants, which include rhododendron, laurel, azalea, andromeda and leucothoë. It is safe to say that over half of the troubles which appear on this group are due to unfavorable soil reaction, improper soil type or lack of proper plant food and not to parasitic diseases. The discussion of this group includes the preparation of the planting site, improvement of the site and fertilization, as well as the control of the more common diseases such as wilt, die-back and leaf spots.

Boxwood is another shrub which the tree man is often called to treat. The most common trouble is the so-called canker disease, which may completely disfigure a beautiful specimen by killing certain branches. Pruning affected branches to sound wood, sanitation and spraying with a copper fungicide are recommended. Boxwood is also subject to winter injury, sunscald, and has rather specific soil requirements.

Various flowering shrubs and small trees belonging to the rose family, such as cotoneaster, hawthorn, flowering quince and Christmas berry, as well as ordinary apple and pear, are quite susceptible to the fire blight disease. Spraying the blooms with a weak copper fungicide gives practical control on most ornamentals. In addition, infected shoots should be pruned and burned.

Flowering crab and hawthorns are also subject to a number of rust and leaf spot diseases, which can be effectively controlled by proper and timely spraying with copper or sulfur compounds.

One of the most extensively used shrubs for foundation plantings is

taxus. Up to a few years ago this plant was considered to be a most dependable one. Within the past few years, however, hundreds of yews on private estates have been dying gradually. The cause for this die-back is believed to be due to excessively acid and heavy soils rather than to fungus root rot.

Surgery.

"Application of Surgery to Blister Rust Infected Trees of Ornamental Value" was a novel contribution by Dr. J. F. Martin, senior pathologist in the division of plant disease control in the federal bureau of entomology and plant quarantine at Washington, D. C. Control of white pine blister rust has in the past been confined to the eradication of the alternate hosts, currants and gooseberries. This disease, introduced from Europe, was first discovered in this country around 1900 at Geneva, N. Y., and is now found in North America wherever white pine is grown. Until about 1920 study of the disease dealt with control in the large white pine timber stand. In 1921 Dr. Martin, with two fellow pathologists, introduced the first work on control of the disease in individual trees of ornamental value. The control consisted of thorough removal of infected branches and cutting out lesions on the trunk, with systematic follow-up treatments at intervals.

The Friday morning program opened with a short business meeting, after which N. L. Partridge, of Michigan State College, East Lansing, told about an apparatus for soil moisture determination under the lengthy program title, "Experiences in the Use of the Electrical Resistance Method of Bouyoucos and Mick in Measuring Soil Moisture under Field Conditions."

Photography for arborists was discussed by two fine amateur photographers, Dr. Homer L. Jacobs, of the Davey Tree Expert Co., Kent, O., and Dr. Forrest C. Strong, department of botany, Michigan State College. They covered not only the uses of colored movies and slides in the educational aspects of shade tree preservation methods, but went into detailed discussion of cameras, lenses, tripods and other equipment.

An innovation at this conference was a plant clinic at the final session, when pest control and other problems

were directed to a staff of scientists and arborists including the following: Norman Armstrong, A. P. Beilman, Carl G. Deuber, E. P. Felt, Carl Fenner, Clyde C. Hamilton, W. O. Hollister, Charles F. Irish, P. P. Pirone, O. W. Spicer, O. Robert Thompson and D. S. Welch.

Exhibits.

In two rooms through which members passed to enter the convention hall was an interesting group of trade exhibits. The firms represented were the following:

American Florist Supply Co., Chicago, Ill.
American Soil Sponge Selling Corp., Capac, Mich.
Bartlett Mfg. Co., Detroit, Mich.
Bauer Mfg. Co., Wooster, O.
John Bean Mfg. Co., Lansing, Mich.
Butts Tree Movers, Cato, N. Y.
Chipman Chemical Co., Bound Brook, N. J.
Cole Nursery Co., Painesville, O.
Dow Chemical Co., Midland, Mich.
Friend Mfg. Co., Gasport, N. Y.
Gar Wood Industries, Inc., Detroit, Mich.
Hiram F. Goodwin, Detroit, Mich.
Grasselli Chemical Co., E. I. duPont de Nemours & Co., Wilmington, Del.
Greening Nursery Co., Monroe, Mich.
Hardie Mfg. Co., Hudson, Mich.
I. E. Ilgenfritz Sons Co., Monroe, Mich.
Karl Kuemmerling, Canton, O.
Muench, H. E., Stamford, Conn.
Peat Import Corp., New York, N. Y.
Permalawn Products Co., Evanston, Ill.
Pontiac Nursery Co., Romeo, Mich.
Pratt, B. G., New York, N. Y.
Standard Chemical Products, Inc., Hoboken, N. J.
Standard Oil Co., Chicago, Ill.
Tanglefoot Co., Grand Rapids, Mich.
Terminal Sales Corp., Detroit, Mich.
Tobacco By-Products & Chemical Corp., Louisville, Ky.
Wachtel Supply Co., Wauwatosa, Wis.
Williams & Harvey, Kansas City, Kan.
F. H. Woodruff & Sons, Milford, Conn.

Michigan Meeting.

The summer meeting of the Michigan Association of Nurserymen was held in conjunction with the shade tree conference, the members gathering at the Fort Shelby hotel for a business meeting on the morning of August 29, when reports on the half-year's work were given by the officers and chairmen of committees, followed by a round-table discussion of current problems faced by the nurserymen.

Local Committees.

The successful arrangements for the conference were under the general chairmanship of J. M. Bennett and co-chairmen C. Edmund Smith and Harry E. Malter, the latter of the Greening Nursery Co., Monroe, Mich., whose successful work in ar-

[Concluded on page 32.]

Soil as Rooting Medium for Cuttings

Tests at Massachusetts State College Favor Sandy Soil as Medium for Rooting Softwood Cuttings of Some Trees and Shrubs—By William L. Doran, Research Professor of Botany

The most commonly used rooting media for summer cuttings of deciduous trees and shrubs and for fall or winter cuttings of conifers are sand or a mixture of sand and peat moss. More use is made of soil, sandy soil, in England where, according to such horticultural authorities as Bean, Markham, Osborn, Taylor and Knight, it is a rooting medium for summer cuttings of *Syringa vulgaris*, *Prunus triloba*, *Vitex Agnus-castus*, *Kolkwitzia amabilis*, *Fontanesia Fortunei*, *Hedera Helix*, *Jasminum nudiflorum*, *Passiflora cærulea*, *Lavandula Spica* and species of *clematis*, *cytisus*, *genista*, *cotoneaster*, *helianthemum*, *berberis* and *stewartia*.

Sandy soil, for such cuttings as will root well in it, has an advantage in that rooted cuttings may be left in it longer. It was here compared with other rooting media with a view to learning more about how generally it may be used and how cuttings of several species root in it. As referred to below, sandy soil is a mixture of two parts sand and one part sifted loam, and sand-peat is a mixture of two parts sand and one part peat moss (by volume in all cases). All were in greenhouse benches, at a temperature of about 70 degrees Fahrenheit.

Rooting media were not sterilized, but soil fungi did not interfere with good rooting of softwood cuttings of most species of woody plants and there was also good rooting of cuttings of *Nepeta Mussini* in sandy soil. A mixture of soil and sand is a good rooting medium for cuttings of *calceolaria*, *salvia*, *fuchsia*, *chrysanthemum* and *geraniums*, but the risk of attack by soil fungi in that medium, unsterilized, might be greater with herbaceous than with woody plants, and only the latter are here considered.

Cuttings were taken in late spring or early summer, with the exception of those of *gardenia* and the conifers, which were taken in late fall. Such as were treated had their basal ends immersed in solutions of indolebutyric acid for the number of hours named in table 1.

Softwood cuttings of most deciduous

species, named in table 1, rooted in larger percentages in sandy soil than they did in sand. Cuttings of *Clematis lanuginosa* rooted ninety per cent in either sandy soil or sand, and cuttings of *gardenia*, all untreated, rooted about equally well, ninety-four to 100 per cent, in sandy soil, sand-peat or sand.

Cuttings of the few species which rooted better in sand than in sandy soil were those of *Magnolia Soulangiana*, *Corylopsis pauciflora* and *Buddleia alternifolia*. August cuttings of *Ilex opaca*, American holly, rooted better in sand-peat than in sandy soil.

There was better rooting of cuttings of beach plum, *Styrax japonica*, two species of *thuja* and two varieties of *Juniperus communis* in sandy soil than in either sand-peat or sand.

Sandy soil proved to be a good rooting medium not only for cuttings of the junipers named in table 1, but also for those of *Juniperus procumbens* and *J. Sabina tamariscifolia*. In it, there was more than fifty per cent rooting of cuttings of a variety of *J. virginiana*, red cedar, which is noteworthy, for varieties of this species have not been easily propagated by cuttings.

Cuttings of the arbor-vitae named in table 1 also rooted better in sandy soil, but that was not true of other conifers, for cuttings of *Tsuga canadensis*, hemlock, two species of *taxus*, two species of *chamaecyparis* and several varieties of *Picea Abies*, Norway spruce, all rooted better in sand-peat.

Viburnum Carlesii rooted well in sand if treated, not if untreated. Cuttings of other species which, untreated, rooted better in sandy soil than in sand did not, even after treatment, root so well in sand as they did in sandy soil, although, in both media, indolebutyric acid improved the rooting of cuttings of most species.

In general, best rooting was of treated cuttings inserted in sandy soil, although treatments had no more effect than did choice of rooting medium. Thus, untreated cuttings of eleven species rooted (averages) forty-five per cent in sand, seventy-one per cent in sandy soil, and cuttings of sixteen species which had been treated with indolebutyric acid rooted (averages) forty-four per cent in sand, eighty-two per cent in sandy soil. Loam may contain some growth-promoting or root-inducing substance, for many species of soil bacteria and fungi,

TABLE 1. ROOTING OF CUTTINGS IN DIFFERENT MEDIA.

Species	Treatments with indolebutyric acid (mg. per liter)	Percentages of cuttings which rooted	
		In sand	In sandy soil
<i>Cornus florida</i> , flowering dogwood	Untreated	47	64
<i>Cornus florida</i> , flowering dogwood	12.5 mg., 24 hours	73	95
<i>Cornus Kousa</i>	25 mg., 18 hours	10	70
<i>Cornus Kousa</i>	50 mg., 18 hours	10	50
<i>Cornus mas</i> , Cornelian cherry	25 mg., 20 hours	25	100
<i>Fothergilla monticola</i>	Untreated	0	67
<i>Halesia carolina</i> , silver-bell tree	25 mg., 20 hours	33	80
<i>Halesia monticola</i> , silver-bell tree	25 mg., 20 hours	54	80
<i>Hamamelis mollis</i>	Untreated	25	59
<i>Juniperus communis</i> Ashfordii	Untreated	50	80
<i>Juniperus communis</i> Ashfordii	100 mg., 22 hours	60	90
<i>Juniperus communis</i> hibernica	100 mg., 20 hours	75	100
<i>Juniperus virginiana</i> Kosteri	100 mg., 20 hours	25	58
<i>Prunus maritima</i> , beach plum	25 mg., 20 hours	26	43
<i>Prunus tomentosa</i>	Untreated	63	80
<i>Ribes</i> , Gooseberry, Poorman	Untreated	32	70
<i>Rose</i> , hybrid perpetual, Paul Neyron	12.5 mg., 15 hours	30	86
<i>Styrax japonica</i>	Untreated	40	80
<i>Styrax japonica</i>	12.5 mg., 18 hours	50	90
<i>Symplocos paniculata</i>	Untreated	36	55
<i>Symplocos paniculata</i>	50 mg., 24 hours	58	92
<i>Thuja occidentalis</i> Douglasi pyramidalis	50 mg., 22 hours	38	100
<i>Thuja orientalis</i> , Oriental arbor-vite	Untreated	19	37
<i>Thuja orientalis</i> , Oriental arbor-vite	50 mg., 24 hours	29	78
<i>Viburnum alnifolium</i> , hobblebush	50 mg., 20 hours	25	67
<i>Viburnum Carlesii</i>	Untreated	14	74
<i>Viburnum Carlesii</i>	25 mg., 18 hours	87	87

in an organic medium, are known to produce auxin. But, if so, that which is in the loam is not so effective as to make treatments with indolebutyric acid wholly ineffective. Thus, for example, cuttings of *Idesea polycarpa* in sandy soil rooted forty per cent without treatment and seventy-six per cent after treatment with indolebutyric acid (twenty-five milligrams per liter for sixteen hours). Several of the species listed in table 1 responded similarly, the beneficial effects of the loam and of the treatment appearing to supplement one another.

It is concluded that sandy soil, a mixture of sand and loam, is so good a rooting medium as to warrant its more general use with softwood cuttings of some species of deciduous trees and shrubs, none of which in this work were in the family ericaceæ, and with fall cuttings of junipers.

[Massachusetts Agricultural Experiment Station Contribution No. 374.]

LONICERA THIBETICA.

Lonicera thibetica, the Tibetan honeysuckle, was introduced from west China many years ago, but it has never become common in the trade. Because of its many good characteristics, it should be used more abundantly. In habit of growth it makes a compact shrub up to four or five feet in height, with drooping, sometimes prostrate branches, bearing small leaves, dark green above and white hairy beneath. The leaves are small, from less than one-half inch to a little more than one inch long, oblong in form and often borne three at a node. The pinkish-purple flowers in early to mid-May are quite showy and are followed by red fruits.

Like most honeysuckles, this species is adaptable to a wide range of soil conditions as long as the soil is well drained and of ample fertility. It does best in sun, but will stand partial shade. It can be transplanted readily if moved early, before growth starts. It does not require so much pruning as the common large bush honeysuckles. Propagation can be accomplished by softwood cuttings.

The Tibetan honeysuckle is fine for bank planting, for planting on top of retaining walls, where the drooping branches are especially effective, and for rough slopes. With some regular pruning it makes a satisfactory shrub for border planting or as a specimen.

L. C. C.

Test for Formaldehyde

Method to Detect Presence in Disinfected Soil Devised at Purdue University—By Robert E. Wean and J. E. Ley

Damping-off organisms may be controlled by the use of a mixture of one-half ounce of formalin (commercial forty per cent formaldehyde) in one pint of water per square foot of seedbed. While the benefits of this method are already proved, it has not been popular, for two reasons; first, to prevent rapid loss of formaldehyde it was believed necessary to cover the treated beds tightly; second, prior to this work it has not been possible to tell when it was safe to sow in the treated beds. Since some seeds are quickly injured by formaldehyde, sowing a treated bed too soon may kill the seeds. This danger is greater in wet weather because the formaldehyde is held by the soil.

Formaldehyde and other volatile disinfectants are valuable in treating soils which are already at the desired pH since no change in acidity occurs. In 1935 the senior author demonstrated by damping-off studies of conifers that it was not necessary to cover the seedbeds when using formalin as a soil disinfectant. The delay necessary before sowing a treated soil depends upon soil texture and temperature, air humidity and temperature, and wind velocity. A simple test will determine when it is safe to sow in formalin-treated soil.

This test involves the use of a standard brand of evaporated milk and the preparation of one reagent. This reagent is stable and may be prepared by adding two parts (by weight) of ferric chloride to ninety-eight parts of hydrochloric acid 18 to 20 degrees Baumé. (1)

The testing procedure is as follows:

1. Secure two tablespoonfuls (thirty grams) of soil from the upper three inches of treated seedbed.

2. Mix the soil with six tablespoonfuls (ninety milliliters) of water. After stirring, allow the soil to settle, or filter the solution to obtain five tablespoonfuls (seventy-five milliliters) of aqueous extract.

3. Place one-third teaspoonful (two

milliliters) of evaporated milk in a porcelain or enameled container.

4. Add two-thirds teaspoonful (four milliliters) of soil extract.

5. Add two teaspoonfuls (ten milliliters) of iron-hydrochloric acid reagent. Stir the solution with a glass rod or wooden splint to prevent curdling of the milk.

6. Heat the mixture slowly to boiling.

A purple color reveals the presence of formaldehyde. The absence of formaldehyde is indicated by a muddy brown coloration. This test is sensitive to one part of formaldehyde in 300,000 parts of water.

This procedure has been followed in testing various soil types and has been found specific for the presence of formaldehyde. Its value has been checked by the correlation of the reaction with the emergence of red pine, *Pinus resinosa*, and tomato, *Lycopersicum esculentum*, in treated soil. By using this test, the chance of seeding beds containing residual formaldehyde can be eliminated.

SPRAY FOR ELM BEETLES.

Experiments with small potted American elms placed in cages with European elm bark beetles indicate that thorough spraying with arsenate of lead may prove of considerable value in controlling the Dutch elm disease, of which the beetles are the principal carriers. The tests, at the Bartlett Tree Research Laboratories, Stamford, Conn., as described by Dr. E. Porter Felt, were with elms two feet high and some 6 or 7 years old. They were sprayed with arsenate of lead at the rate of six pounds to 100 gallons of water, together with a satisfactory adhesive and spreader.

HOME building remains at a high level and shows no signs of slowing down in the immediate future, although the big increase in construction records prominent in the news of late comes from industrial contracts. But the continuation of residential building augurs good business for nurserymen in autumn and another good spring in 1941.

(1) Leach, A. E., *Food Inspection and Analysis*, second edition, p. 180. John Wiley & Sons, New York, 1911.

Making Nursery Advertising Pay

Methods Found Successful in Twenty-five Years' Experience in This Field Briefly Outlined in Summary of Talk before Landscape Group at A. A. N. Convention — By W. A. Natorp

Advertising—or any other form of business promotion—must pay. To make it profitable, those methods must be found which are suitable to one's own business. Successful corporations, such as department stores and manufacturers of automobiles, cigarettes, soap, etc., advertise constantly. They have discovered and use the methods that pay them. Advertising must be backed by suitable selling methods, satisfactory work and pleasing service. There are many types of advertising, and I have tried most of them in my twenty-five years in the nursery business, adopting some and discarding others.

Foremost among the various types of advertising is that done by printed matter. First is the catalogue, which nearly every nurseryman uses. But one or two mailings of catalogues during the year are not enough. They should be followed up from month to month by timely folders—one on dogwood in spring, one on roses in June, then one on plant foods and another on shade trees in the heat of summer when the thought of a cool spot on the grounds will appeal to the homeowner. With each of these folders enclose a return post card, by means of which the prospect may obtain a catalogue or ask for a personal call.

Articles in the garden section of local newspapers are valuable to the local nurseryman. The editor will be glad to receive them, but do not expect your name to be used or signed to them. Rather depend on a small advertisement each week in the local newspapers which run garden sections. Such small advertisements keep your name before the public, so that the homeowners feel confident about consulting you when a landscape job is needed.

For a selected list of prospects and more or less regular clients, a monthly reminder appropriate to the nurseryman's operations is effective. One or another of the syndicated landscape letters is good for this purpose.

Informative pamphlets, containing advice on planting and maintenance, not only are of help to those who receive them, but keep the nursery-

man's name before the prospect for a long time.

One of our best ideas came from noticing the instruction card which was tacked up in my boiler room by the man who installed the oil burner; when something went wrong I referred to the card, and there was his name and address. So we have similar instruction cards printed, not elaborate, which we tack up in the tool shed, garage or basement when we are doing some planting for a customer. It is there as a reminder of our name and address at some future time when the customer thinks about having further work done.

Plant labels, whether tags fastened to plants or markers for the garden, have the company's name printed on the back. When we have finished a planting, a few such labels may accidentally be left. Then when visitors admire our customer's garden, they may look at a label to see the name of the shrub, and cannot help noticing our name at the same time.

Books containing collections of photographs showing plantings of special types are great aids to selling.

Attractive stationery is effective advertising. To have your name in special type and perhaps a sketch for the letterhead cost little more than an

ordinary job of printing. The difference is an excellent advertising investment.

We use a bimonthly house organ, Natorp News, in which mention of activities of members of the staff creates good will and maintains interest and enthusiasm among all our men.

Besides advertising in printed form, there is that done by voice. The radio has its place, but we discarded it after trial as too expensive to reach the relatively limited number of persons which would compose a high-class clientele. We do find effective lectures to garden clubs, luncheon groups and other organizations.

Signs are an exceptionally good medium of advertising for the nurseryman. A sign in a conspicuous place on a lawn indicating that you are doing planting or service work is an excellent and cheap form of advertising. But the sign should be of pleasing design, clean and neat; otherwise it may be objectionable to the client and the reverse of good advertising for the nurseryman. We have had a distinctive sign made on enameled metal, with a decorative outline and the name of the firm in attractive letters. Such signs cost somewhat more, but they are always clean and they are so attractive that sometimes a client will like one left on his lawn for a few days, an evidence of his pride in the new planting.

The same sign is used on our trucks, so that it is recognized as a trade mark of the firm. Our name also is on tools, which, by the way, are always kept clean and bright. So that our men may also present a neat and clean appearance we have adopted a uniform, gray in color, with our green sign sewed on the shirt. The customers like to see men around in such apparel, rather than old, dirty clothes. The men pay half and the firm pays half the cost of the uniforms.

Another form of advertising which is most pleasing to clients is an appropriate plant gift. Why not use our own wares, instead of calendars, pen-



W. A. Natorp

cils and the like? For instance, instead of sending out greeting cards to clients at Christmas, we sent each a little potted taxus. We know from letters and calls that the little extra these cost was much appreciated, and some later orders resulted.

Similarly I think that demonstration plantings of nursery stock on corner lots is a good idea, though the maintenance is costly. Floats and displays in flower shows are appropriate.

However, we decline to advertise in local souvenir program books, for if you donate to one you receive requests for many others. When we are approached, our reply is that the budget for advertising has been made up in advance and there is no money available for the purpose. If the pressure is too heavy and persistent, we may offer a rose plant or a small evergreen as a donation to the affair, and so avoid taking advertising space in the program book.

The display garden we tried and have eliminated as too costly. But we have a neat planting in front of the office which is attractive to customers. The nursery is kept orderly and clean, so that it may be attractive to visitors. Always we seek to maintain efficient service, because we believe that good work makes advertising of value.

NOW DR. GEORGE F. WILL.

Among five distinguished persons who received honorary doctor's degrees from the state university in June was George F. Will, Bismarck, N. D., son of the pioneer, Oscar H. Will, who established the first seed and nursery business in North Dakota in 1882.

George Francis Will graduated from Harvard University, majoring in anthropology and ethnology, subjects he has systematically pursued as an avocation since. He is the joint author of several publications on the culture of the Mandan Indians issued by the Peabody Museum of Harvard University and is the sole author of a publication on the pottery of the Mandans. His interest in corn and corn breeding led him to write with Spinden, "Corn Among the Indians of the Missouri Slope." More recently he has translated from the French de Trobland's diary of his winter at Fort Clarke and also Pierre des Lac's expedition up the Missouri in 1801-02. He has been active as

a plant breeder, particularly in the improvement of corn, squash and beans. He has actively championed the use of native shrubs and plants for landscape purposes in the northern plains. He is a past president of the North Dakota State Horticultural Society and has been active in the society for many years. His talks at nurserymen's meetings on Indian customs have always been extremely interesting.

SOUTHWESTERN NEWS.

R. B. Wilson, formerly of Kansas City, Mo., is the new manager of the Roselawn Nursery, Pueblo, Colo.

Jacob Simonsen, of Simonsen's Nursery, Glenview, Ill., has been en-

announced later. Ralph Ricklefs, of the Kansas Landscape & Nursery Co., Salina, has been appointed chairman of a committee of nurserymen to coöperate with Dr. William R. Pickett, head of the department of horticulture, in arranging the program. A new feature which should arouse considerable interest will be a question box.

Dry weather conditions, which if not relieved soon will handicap fall business, prevail on the eastern slope of the Rockies. Many of the irrigation ditches are dry because of lack of snow last winter.

The Wichita Nurseries, Wichita, Kan., were low bidders on landscaping the new post office at Halstead, Kan.

The Intercity Florists are adding a line of nursery stock at their flower shop, at Joplin, Mo., and at their greenhouses, at Webb City, Mo.

NEW PLANT PATENTS.

The following plant patents were recently issued according to information received from Rummler, Rummler & Davis, Chicago patent lawyers:

No. 415. Hydrangea. J. H. Kluis, Boskoop, The Netherlands, assignor to Joseph S. Merritt, Dundalk, Md. A new and useful variety of dwarf hydrangea, with features in combination, characterized particularly by its dark and heavy foliage, its hardy growth, its extra-stiff and strong stems and branches and its extraordinary freedom of production of large, compact, ball-shaped trusses of spindly pink to spindly red.

No. 416. Rose plant. Charles H. Perkins, Newark, N. Y., assignor to the Jackson & Perkins Co., Newark, N. Y. A new and distinct variety of rose plant of the large-flowered polyantha group, characterized as to novelty by its similarity in general details to its parent, but distinguished therefrom in its bush form and medium-branching habit of growth of the plant and the continuously recurrent blooming habit of its flowers.

No. 417. Rose. Nicholas Grillo, Milldale, Conn. A new variety of hybrid tea rose, characterized particularly by its prolific growth, its exceedingly stout stems, its blooms of lasting, brilliant pink color and its dark green foliage with purplish undersurface.

THE chairman of the eighth annual Western Shade Tree Conference to be held at San Jose, Cal., in May, 1941, will be Ray Hartman, owner of the Leonard Coates Nurseries, San Jose. Vice-president is H. Dana Bowers, state landscape engineer; treasurer, Dale Griggs, superintendent of parks, Santa Ana, and secretary, Edward H. Scanlon, Santa Monica, Cal.



Sign Reproduced on Circular.

joying a two weeks' vacation with his family in the Colorado Rockies. Mr. Simonsen found time along the way to visit a few nurseries.

C. D. (Bill) Wagoner, of the Wagoner Nurseries, Hutchinson, Kan., Mrs. Wagoner, their two daughters and Bill's father left August 18 for a two weeks' fishing trip to Minnesota.

Newt Sutton, of the Sutton Nursery, Independence, Kan., returned recently from a trip to Oregon.

The date of the annual field day of the Kansas Association of Nurserymen has been set for September 15, the event to be held at Hutchinson.

The fourth annual school for Kansas nurserymen will be held early in December at the Kansas State College, Manhattan, the exact date to be

Selection of Narrow-leaved Evergreens

Conclusion of Article on Large Trees, Sixth in Series Similar to the Treatment of Woody Deciduous Ornamental Plants in "Compiling a New Nursery List"—By L. C. Chadwick

The pines constitute a large group of our narrow-leaved evergreen trees. They are characterized by having needlelike leaves borne in bundles. The common pines are quite easily distinguished by having a definite number of needles in each bundle and by other characteristics of the buds and twigs. Types of two, three and five needles predominate, and with few exceptions the number of needles in a bundle is constant. When the many uncommon species are added to the list of those that are common, identification becomes a difficult task, often requiring the cones and seeds for correct determination.

The pines as a group are more adaptable to adverse conditions than the spruces or firs. They do well in greater variation and poorer soil and under hot, dry conditions. They stand dust and smoke of cities to a better advantage. The larger types are particularly adapted to large estates and parks, where at maturity they are often picturesque. The smaller and slower-growing species and varieties are of considerable use on smaller properties. They are often used for screens or windbreaks on farms and large properties, and some can be trimmed into a satisfactory large hedge. Propagation of the pine species is by seeds and the varieties by grafting.

Pinus cembra, the Swiss stone pine, is not common in the trade, but it is one of our best small pines. It is one of the white pines, having five needles in a bundle, is slow-growing and forms a symmetrical, dense, narrow pyramidal tree. The needles are dark green about two to four inches long. The Swiss stone pine tolerates thin, stony soil in exposed situations, but does best in a relatively rich moist soil. Because of its small stature and slow growth, it makes a fine specimen for small home grounds. It is perfectly hardy.

Pinus griffithi (excelsa), the Himalayan pine, is on the border line for hardiness, but where it can be grown it is one of the most interesting of all the pines, with its long drooping needles borne five in a bundle. It is a large tree at maturity, of open, broad pyramidal habit of growth. The

leaves are bluish-green, slender, drooping and four to eight inches long. Little is known about its exact soil and environmental requirements. It probably does not differ greatly from the other white pines. It was quite severely injured in Ohio a few years ago during an extremely cold winter.

Pinus koraiensis, the Korean pine, is also one of the white pines, and while it is not yet common in nurseries, it will certainly be in demand as soon as the buying public comes to know it better. It develops into a uniform, large tree of pyramidal habit. Growth is relatively slow, thus making it adaptable for planting in restricted situations. The needles are dark green, two and one-quarter inches to four and three-quarter inches long, borne five in a bundle. It seems perfectly hardy, but does best when protected to some extent from sweeping winds.

Pinus peuce, the Macedonian pine, is still another of the white pines with five needles in a bundle. It is a small narrow pyramidal tree of slow growth and light to bluish-green foliage. Needles are about three to four inches long. The Macedonian pine resembles in general appearance the Swiss stone pine, but is somewhat faster-growing and does not possess quite so good foliage color.

Pinus resinosa, the red pine, is one of our common but best pines. It forms a broad pyramidal tree, growing to seventy-five to one hundred feet, with stout spreading branches and dark green, relatively stiff needles, two in a bundle. The needles are not so stiff as those of the Austrian or western yellow pines, but stiffer than those of the white pines. Growth is relatively rapid, but the plant maintains its form and lower branches well until of considerable age. The red pine is adaptable to a wide range of soil conditions, but it does not do so well as others in swampy or heavy clay soils. It is hardy and is useful as a specimen plant in many landscape compositions for bold effects. It also finds its use for screens and windbreaks.

Pinus strobus, the white pine, is so common that it needs little discussion

here. Small trees possess a symmetrical pyramidal habit of growth with horizontal branches in regular whorls. With age the head becomes broad and open and picturesque. The leaves, five in a cluster, are soft and bluish-green. It will do best in deep rich soil, but tolerates light sandy or heavy dry soil. It will stand pruning to make a 4-foot or 5-foot hedge or higher screens and windbreaks. It is especially interesting as a specimen of mature size. It is rather susceptible to insects and diseases, but nevertheless must be placed on the selected list.

Pinus strobus fastigiata is a form of the white pine with ascending branches forming a narrow pyramidal head. While it is not common in the trade, it should be of considerable use as a screen plant and as a small specimen.

Pinus sylvestris, the Scots pine, is a medium-size tree of variable habit. Young trees are quite symmetrical, with somewhat pendulous branches. With age it becomes round-topped or irregular-branched, and the reddish or salmon-colored branches add an interesting feature. The needles are short, twisted, bluish-green and two in a bundle. The Scots pine is probably the most resistant of all the pines for adverse city conditions and still is of ornamental value. It endures light sandy soil and exposed situations. It is useful for specimen plants, screens and windbreaks.

Space does not permit much discussion of the pines on the secondary and discard lists. *Pinus albicaulis*, *armandi*, *bungeana* and *parviflora* are rare, but have given promise from limited trials. *Pinus parviflora* appears especially promising as a pine for small home grounds. *Pinus flexilis*, *monticola* and *thunbergi* do not appear to be quite so satisfactory as those mentioned above. *Pinus thunbergi*, the Japanese black pine, is said to be especially satisfactory for planting along the eastern seashore.

Pinus banksiana, *rigida* and *virginiana* are native pines which find considerable use in their native habitats. This is especially true of the short-leaved forms, *Pinus banksiana* and *virginiana*. *Pinus nigra*, the

Austrian pine, and *Pinus ponderosa*, the western yellow pine, have been used extensively, but hardly seem to warrant a place on the selected list. Both species are of similar use as *Pinus resinosa*, the red pine, but not so satisfactory. The Austrian pine has decreased in favor during the past few years, partially because of its susceptibility to pests. The pines on the discard list are considered generally inferior as ornamentals.

Pseudotsuga.

Pseudotsuga taxifolia glauca, the Douglas fir, a native of the western states, is a large tree reaching to 200 feet, of pyramidal habit with horizontal branches and drooping branchlets. The leaves are about one inch long, dark or bluish-green above and with grayish-white bands beneath. One of the best identification characteristics is the long pointed brown buds.

According to Rehder the typical form of the coast region is distinguished as *Pseudotsuga taxifolia viridis* and the Rocky mountain form, which is a tree of slower growth and more compact habit, as *Pseudotsuga taxifolia glauca*. The latter is the more satisfactory as an ornamental, while the former is more satisfactory as a timber tree.

The Douglas fir does well in most soils except those that are poorly drained or swampy. It is more tolerant of city conditions than the true firs and spruces and compares favorably with the pines. It is generally hardy. Only occasionally does it show winter or summer burn. It stands shade well.

Being of rapid growth and large size, its use as a specimen is limited mainly to large estates and park planting. It can be pruned to a wide, large hedge and is useful for windbreaks and screen planting. Recently it has also been used rather extensively as a Christmas tree.

Tsuga, Hemlock.

The various species and varieties of hemlocks constitute one of our most important types of narrow-leaved evergreens for landscape purposes. Recently considerable interest has been manifested in the varieties of the Canada hemlock, and among them, with the yews, we have our most important narrow-leaved evergreens for planting in the shade and for general landscape purposes.

Tsuga canadensis, the Canada hemlock, is a handsome pyramidal tree, up to 100 feet in height, with graceful, sweeping branches. The leaves are shining, dark green above, silvery-green below. The foliage spray is flat. *Tsuga canadensis* does well in a wide range of soil conditions, but prefers one of moderately acid reaction, rich and containing ample moisture. It stands full shade and will likewise stand full sun if not in wind-swept situations or in extremely hot climates. It does best in at least partial shade and should never be exposed to sweeping winds, especially in hot climates. It will stand pruning to make a wonderful hedge if it is not clipped to narrow widths. It also finds its use for screens and specimen plants. Clipping once or twice a year will restrict the Canada hemlock sufficiently, so that it can be used in the foundation planting, especially at the corners or angles of the house where it does not interfere with the view from the windows.

No attempt has been made to classify into the three groups the many named varieties and unnamed variations of the Canada hemlock. Two varieties within this size group are placed in the selected list. *Tsuga canadensis atrovirens* is described as a slow-growing variety with dark green foliage arranged on relatively short, rigid compact branches. *Tsuga canadensis fremdi* is a slow-growing variety of pyramidal habit and with dark green dense foliage. The variety *Tsuga canadensis jenkinsi*, with slender branches and small leaves, and the two colored foliage varieties placed in the discard list do not seem to warrant a higher rating.

Tsuga caroliniana—In the midwest the Carolina hemlock is not so satisfactory as the Canada hemlock and would not justify a rating higher than the secondary list. In other sections it does much better and warrants a place along with *Tsuga canadensis*. It apparently requires a cool, moist, well drained, acid soil for best results. Hot, dry, alkaline soil conditions are not to its liking. The Carolina hemlock attains a height of seventy feet or more and makes a graceful tree of compact habit. The leaves are dark green, radiating in all directions from the twig.

Four species of hemlocks are placed on the secondary list. Of these *Tsuga diversifolia*, the Japanese hemlock, and

Tsuga sieboldi, the Siebold hemlock, show the most promise. The Japanese hemlock is said to attain a height of from sixty to eighty feet, but is usually not so large in cultivation; it more often forms a shrubby plant with a number of main branches from near the base of the plant. The leaves are short, crowded and dark or glossy green. Where it proves satisfactory it should make a good specimen for small lawns.

The Siebold hemlock is similar to *Tsuga diversifolia*, but is usually considered less hardy. The plant is bushy and possesses small dark, glossy green leaves. It is worthy of more extensive trial.

In general, the two western hemlocks, *Tsuga heterophylla* and *Tsuga mertensiana*, have not done well in the east.

A few of the true cedars, *cedrus*, find a place on the secondary list, but are mostly relegated to the discards. The cedars are large trees at maturity, possessing a striking appearance with horizontally spreading branches, gray bark and short stiff green or bluish-green needles, many clustered together on spurs. They find a place no higher than the secondary list because they are not reliably hardy over most of the area considered in these discussions. Isolated cases of trees doing well are reported. *Cedrus deodara*, the Deodar cedar, is considered the most hardy; *Cedrus atlantica*, the Atlas cedar, intermediate, and *Cedrus libani*, the cedar of Lebanon, the least hardy. However, a strain of the cedar of Lebanon has been introduced through the Arnold Arboretum which is quite hardy. All of the cedars are magnificent trees, well worthy of a place in the landscape where they can be grown.

Cupressus, the cypress; *sequoia*, the redwood, and *sequoiadendron*, the big tree, are not generally satisfactory in this territory.

THE Richfield Nursery & Florist, Broad street and Van Houten avenue, Richfield, N. J., is now operated solely by Conrad Maarschalk, Jr., whose partnership with George Maarschalk has been dissolved.

THE Springdale Nursery, Inc., was recently incorporated at Stamford, Conn., with an authorized capital of \$50,000. The incorporators were Robert K. Pierrez, Louise McNierney and Edna Fabrizio, all of Stamford.

Excerpts from a Plantsman's Notebook

Further Notes on the Culture, Propagation and Uses of Many Kinds of Plants Given Garden Trial in Years Past—By C. W. Wood

Hybrid Pinks.

(July 30, 1940.) The thought came to me this morning that a brief recital of my experience with hybrid pinks, which I have been testing as rapidly as time and space allow, would be helpful to other growers. I shall make no effort to cover the subject fully at this time, rather restricting the remarks to the plants' good and bad points, as they have developed under my observation. Later, perhaps there will be space for more extended remarks on the outstanding ones. Generally speaking, pinks are, or should be, of more than average value to American gardeners, because most of them were evolved in dry, hot climates, similar to that of America east of the Rockies, making them specially suited to our conditions. Many of the ones to be mentioned are no doubt known to most growers, but will be included for the benefit of newcomers to the ranks.

Since Beatrix was introduced here a dozen or more years ago it has attained great popularity. It deserves all the attention it has ever received, too, not only because of its long season of production (June to September here in northern Michigan) of double pink flowers in heads, but also for its amiability and for its ease of reproduction from cuttings. The latter are especially easy if taken from gently forced plants in late winter or from new growths of outdoor plants in early spring. So far as my observations go, it is a plant without a fault, except for the untidy look which old flowers give to the plant. But that is something to be encountered in most plants and is answered by an occasional shearing.

The new pure white form of Beatrix which will be reaching the trade channels next year is a splendid addition to this type of pinks and will no doubt make it even more popular.

Although Ariel has a rather short flowering season (about five or six weeks in late spring), its showy, single, rose-pink flowers, quite large for the size of the plant, and length of stem (about six inches) are ample reason for including it here and in

gardens. It has a good constitution, seldom showing signs of black spot here, and grows readily from cuttings.

Of all the modern single-flowered selections of *Dianthus plumarius* that I have grown, Highland Queen, with its large scarlet flowers, which are produced from June until frost, is my choice. Nothing in its class that I have seen can compare with its showiness, yet the color does not bark, as gardeners say. Vigorous and healthy, it grows easily from spring cuttings and sells on sight. There is apparently a seedling, maybe more than one, of inferior quality in the trade under this name; so one should be sure of his source when buying stock plants. Incidentally, seeds of Highland hybrids, as they are now available in this country, will likely give you a new conception of the value of *D. plumarius*, but no one should get the impression from that statement that Highland Queen can be grown from seeds, for it simply cannot be done.

I have lately come into possession of a *plumarius* variety, Homer by name, apparently an old-fashioned kind, which has many virtues. Not the least of these is an early start on its production of double red flowers. Here that happy event occurs in late May, and at the lower end of the Great lakes it should be at the height of its glory at that time. I have a notion that, considering its color and blooming period, it would make a good cutting item for Memorial day. The stems are rather short (six inches) for cutting, to be sure, but one cannot have everything in every plant.

There are several double white forms of *plumarius*, all desirable in their separate ways and all having their faults. All that I have had are busters, which is the gardeners' way of saying that they split their calyces. That oldtime favorite, Mrs. Sinkins, is the worst offender in that respect, although its long association with gardeners continues to keep it in the front rank. White Reserve stands up better here, produces a somewhat stronger calyx and has a little longer blooming period, al-

though it does not deserve the appellation of continuous bloomer ascribed to it in some catalogues, at least not as it behaves here. It is, however, a better garden plant and a better cut flower than Mrs. Sinkins. Another double white which I received under label of Powder Puff also deserves notice. It is lower growing than the others, seldom exceeding six inches here, and its flowers, which are quite fully double and freely produced, are quite free of split calyces.

Rose Unique, by its splendid performances of producing large, double, deep pink flowers from June into September, stamps itself as one of the best new introductions in pinks during recent years. Its hardiness and vigor make it a good garden plant, and its good color and form of flowers on 10-inch stems tell me that it will find favor as a cutting item, not only among amateurs but in commercial establishments as well. It is also a good propagator from new growths in winter under glass or from outdoor stock in early spring.

In small hybrid pinks, Rose Cushion stands without a peer for rock garden use, so far as I have gone. The only thing it lacks is a long flowering period. It has everything else, including a pleasing cushion of blue-gray foliage, which is an ornament throughout the year, an enormous production of bright pink flowers on 2-inch or 3-inch stems, a strong constitution, which keeps away black spot and other fungous diseases, and an ease of propagation from cuttings that is gratifying to the grower.

The hybrid known as *D. glauca compacta* has perhaps the loveliest foliage, a silvered glaucous mat, of any of the newer pinks, but it has been touchy in my trials, suffering badly from black spot, and rots at the crown at the slightest provocation. If it had a better constitution it would be one of my favorites.

While on the subject of troublemakers, Spark should be included. I know of few more persistent bloomers, the period extending from spring until frost puts an end to it in autumn, and the color is a splendid sparkling

red. But it behaves badly, seldom lasting more than two years here, which may be because of the sweet william blood, which I suspect it carries, and it shows a tendency to pass out at all seasons of the year. Incidentally, the hybrid now on the market as Dazzler is not dazzling by any stretch of the imagination and has not been floriferous in my trials. Little Joe, on the other hand, is really dazzling in its crimson shade, has a long season of bloom, covering the entire summer, and is a good grower, although subject to leaf spot. It will be some time before it becomes cheap, however, because it is not an easy propagator.

Plantains.

(August 19, 1934.) A gardener who has fought plantains in his lawn for years is not going to warm up to the idea of deliberately planting another one in his garden. That fact was brought home to me this year when I had a frame of a silver-leaved species to sell. Tell an inquirer that it is a silver-leaved plantain and no amount of selling effort will move a plant; call it *Plantago argentea*, and its beautiful silver rosette will do the selling. Nor would that be deceiving anyone, for the plant has never been weedy in my garden, seldom selfsowing, and if it does the few seedlings are always welcome. As a matter of fact, the gardener need never worry about the plants' seeding if the typically plantain flower spike is cut before it produces seeds. The plant is easy in any sunny dry spot.

(July 31, 1940.) The plant is best grown from seeds, when these are available. But they are not easy to find, as has been shown in my experience during the past two or three years, when I have been trying to add it to my collection again.

(October 7, 1935.) The loveliest plantain that I have ever seen, *Plantago nivalis*, from the Sierra Nevada mountains of Spain, again decorates a high spot in the rock garden after an absence of several years. This is one of the loveliest of silver-leaved plants, the small rosettes having more silver and more silkiness than any other plantain of my acquaintance. It takes some care to make a permanent plant out of it, including a perfectly drained soil and a protected situation. A rather infertile gravel, with just enough humus in it to keep it going, brings out the silvery silky loveliness of its foliage. Even then it disappears

during the winter this far north, suggesting a tenderness to cold.

Arabis Billarderi.

(May 2, 1930.) There seems to be much confusion among gardeners as to the meaning of the name *Arabis Billarderi*. Although I am a plant lover, which is synonymous with gardener rather than botanist, pains have been taken to get the name applied to the right plant. During the process the following facts have come to light:

Billarderi is the name generally accepted among botanists for a variety of *Arabis albida* with leaves which are generally either entire or with a tooth or two at the base, while those of the type are angle-toothed near the top. They are also said to present a more hoary appearance, but that is not a constant character in cultivated plants.

It does, however, differ from the uniform white color of flowers in the type, its double variety, *flore-pleno*, and the variegated form, by producing colored flowers. The books cover this point by saying that the flowers are "often tinged." The plant as available in seeds is a good shade of pink, often dark enough to earn the reputation of being magenta, although I have never had one that I would put in that class. On the other hand, most that I have seen (some of them under label of *A. alpina rosea*) have been a good shade of rose or pink.

It is a really desirable plant that should be used more freely in gardens. Although it, like the parent *albida*, will tolerate some shade, it blooms more freely in sun, and it puts on its best show in a soil that is on the lean side. Like others of its kind, it is easily grown from cuttings soon after the flowering season in spring.

Solanum Crispum.

(August 8, 1940.) It may be that *Solanum crispum* is in the trade in the south; if it is, it must be in rather limited quantities, for I do not locate it in my catalogue file. If it is not, southern growers are missing a splendid opportunity to enrich the horticulture of their section while they are adding to their own sales. It is not apparent just how hardy the plant is. Certainly, it cannot stand our northern winters, although it has shown that it can endure several degrees of

frost here, and its natural range to the central provinces of Chile would indicate a hardiness equal to the average winters of Kentucky.

Bailey's *Cyclopedia of Horticulture* calls it "an unarmed shrub, or sometimes attaining the size of a small tree," without mentioning the climbing characters which it has manifested in trials here. A friend in England tells me that it is usually trained against a southward facing wall there, where it attains a height of twenty feet. In my trials it was kept to shrub shape and proportions by hard pruning in early spring. It should be mentioned, also, that it spreads from the root and might need curbing in warm climates. The same tendency suggests an easy method of propagation, although cuttings of new wood would probably be more useful. The literature does not tell us how long its flowering period is under natural conditions. Judging from its behavior here in pots I suspect it would cover two months or more in summer, and its variety *autumnalis*, with quite the same large, violet-blue flowers, which are more freely produced, would extend the season into the fall months.

DOLGO CRAB FOR JELLY.

The contributor of the article on "Jelly from the Shrub Border," in the August 15 issue, Mrs. C. H. Heard, overlooked one outstanding crab, one which combines unusual beauty with excellent jelly fruit.

The Dolgo crab, grown in bush instead of tree form, when hanging full of bright red fruits an inch or better in size, is surely a thing of beauty. Rarely does a visitor pass one of them without uttering plenty of "oh's" and "ah's", and he or she nearly always wants one. They begin fruiting at 3 years old.

H. F. Hughart.

THIEVES drove a truck through the nursery grounds of the Bald Hill Nursery, West Warwick, R. I., carefully selecting a loot of evergreen trees.

THE tenth annual San Mateo county fiesta, to be held at Bay Meadows, San Mateo, Cal., September 19 to 22, will be more elaborate than any of its forerunners, with exhibits from flower growers, nurseries, horticultural associations, private estates and florists.

Southern Association Meets

Varied Aspects of Program Interest Members of Southern Nurserymen's Association in Forty-second Annual Convention, Held at Charlotte, N. C., August 20 and 21

Education, action and amusement cover in three words the forty-second annual convention of the Southern Nurserymen's Association, August 21 and 22, at Charlotte, N. C.

Promptly on scheduled time President J. B. Wight, Cairo, Ga., opened the first morning's session by presenting Dr. C. W. Pickens, who offered the invocation. The song leader, Harold Daniels, led the members and guests in singing "God Bless America."

Mayor Ben E. Douglas, of Charlotte, then gave the conventioners the freedom of the city. Praising the nurserymen for what they are doing in making America more beautiful, he said, "The more beautiful you make a city or town, the higher you raise the standard of living." Response was made by Richard H. Simpson, Monticello, Fla.

President Wight, in his official address, cautioned against overproduction and urged membership in the A. A. N. Owen G. Wood, Bristol, Va., retiring president of the A. A. N., arrived next day to tell more about the national organization.

C. O. Kuester, executive vice-president of the Charlotte chamber of commerce, brought greetings from his organization and suggested that the visitors give special attention to the old trees, the boxwood plants and the landscaping of Charlotte's residential section.

With preliminaries over, the serious work of the convention began. As suggested by the general program,

the sessions were largely of an educational and practical nature. The first speaker was Frederic A. Fay, Richmond, Va., assistant landscape architect, national park service, who discussed landscape architecture in national parks.

Dr. T. H. McHatton, of the University of Georgia, Athens, told of the things learned from a thousand Elberta peach trees. This was from the points of cultivation, spraying, pruning, packing and marketing the fruit. Records kept for several years showed an average net profit of about \$175 per acre on the experimental orchard.

Carl A. Sorg, landscape architect with the United States housing authority, told of the nurseryman's part in the housing program. Considerable interest was aroused by Mr. Sorg's remarks and his replies to various questions.

Continuing the educational program on Thursday morning, a symposium was directed by Dr. Glenn O. Randall, associate professor of horticulture at North Carolina State College.

The first speaker was Prof. H. R. Garris, who discussed "Some Boxwood Diseases," carefully describing the appearance of the infected plants, but stating that a definite means of control had not yet been discovered.

"Insects Attacking Nursery Plants and Their Control" was presented by Prof. J. O. Rowell. This subject was of intense interest and brought forth many questions from the listeners. In fact, the chairman found it necessary to "call time" on the questions and answers.

"The Use of Fertilizers," the topic handled by Dr. E. R. Collins, was supplemented by a chart distributed to the listeners, giving elements and percentages.

An up-to-the-minute discussion on the use of vitamin B₁ was led by Prof. J. G. Weaver. While tests are not yet conclusive and further experiments are in process, it is not likely that vitamin B₁ will meet all of the claims made, it was stated. The whole question needs further study.

In an effort to close the convention

business with the morning session, several items were curtailed or omitted. Brief reports were offered by the chairmen of standing committees. E. W. Dabbs, Jr., for the membership committee, reported thirteen new members. Harry Nettles, for the necrology committee, offered a resolution on the death of Frank Drake, Winchester, Tenn. Other reports included that on trade barriers, by Lee McClain, Knoxville, Tenn.

The nominating committee presented the names of Walter Hillenmeyer, Jr., Lexington, Ky., for president; Tom Dodd, Sr., Semmes, Ala., vice-president; W. C. Daniels, Charlotte, N. C., secretary-treasurer, and M. L. Harkey, Charlotte, N. C., chairman of the executive committee. The report was accepted, and the candidates were elected by unanimous vote.

Lexington, Ky., was selected as the convention city for 1941, an action taken in recognition of the one hundredth anniversary of the Hillenmeyer Nurseries, of that city.

Wednesday afternoon was set aside for visiting Mecklenburg Nurseries, Inc., Harkey Bros. Nurseries and E. G. Hayes Nursery. Field inspection was made by those visitors hardy enough to brave the hot sun. The tender specimens loafed under shade trees.

After the nursery tour, visitors were taken through Charlotte's residential section. It was the general opinion that Charlotte was a charm-



Tom Dodd, Sr.



Walter W. Hillenmeyer, Jr.

ing city and that the nurserymen were a large factor in the development.

The annual dinner was held in the evening, with President Wight acting as toastmaster. A floor show was staged by Charlotte talent. The main feature of the evening was given by Prof. George M. Bentley, Knoxville, Tenn., with color pictures and interesting tales of the trip to the Pacific coast in 1939.

W. C. Daniels was program chairman, and M. L. Harkey served as chairman of arrangements. The ladies' auxiliary, organized at last year's meeting, showed substantial growth under the leadership of Mrs. W. C. Daniels, president, and Mrs. E. E. Chattin, chairman of the membership committee. A breakfast meeting was held on the second day.

E. Fred Rowe.

HOUSTON GROUP MEETS.

The Houston Landscape and Nurserymen's Association met August 19 at the home of W. D. (Dick) Griffing and his mother, 2011 Sul Ross, Houston, Tex. O. J. Anderson, president, was in charge of the business session, which opened at 8 p. m.

The entire staff of new officers, who began their terms with this meeting, was introduced.

The president appointed a new staff of members to the several committees, the personnel of which includes the following:

Azalea blight—R. C. Suggs, chairman; Miss Wilma Gunter, M. H. Davis.

Beautification—W. D. Griffing, chairman; Mancill Allen, Frank Cornelius, Jr.

Membership—J. W. Kingswell, chairman; Fred Teas, H. R. Eaves, I. E. L'Hommedieu, A. T. South.

Sick—Mrs. R. N. Moseley, chairman.

Mrs. T. B. Foster, Mrs. R. L. George.

Publicity—Miss Wilma Gunter, chairman; R. C. Suggs.

Program—W. D. Griffing, chairman; G. Bobb Head, Jr.; C. Oliver Hoopes, O. J. Anderson.

Telephone—J. J. Herrle, chairman.

Slogan—Frank Cornelius, Jr., chairman; G. Bobb Head, Jr.

Special report was made by the committee handling the beautification program, and the committee is expected to carry on extensively in work along this line.

The committee reporting on the azalea petal blight likewise proved to have most interesting news, detailed reports being read from Dr. Dunlap, of Texas A. & M. College, as to his findings on the disease and recommendations for its control, and from

J. M. Del Curto, of the state department of agriculture, about a proposed quarantine covering the entry of plants from eastern states where the disease has been found. Additional data is expected on this subject shortly.

Announcement was made of the program of the annual convention of the Texas State Nurserymen's Association, at Austin, September 17 to 19. After much discussion, it was finally voted that the Houston association take out membership in the state association and elect a delegate to attend the meeting at Austin and be authorized to vote in behalf of the Houston group. The delegate elected was Miss Wilma Gunter and the alternate, Thomas B. Foster.

The association voted to accept members from allied lines into full membership, including seedsmen, bedding plant growers, construction, sprinkler and lawn development men. The membership committee was authorized to invite them to membership.

W. D. Griffing was appointed to prepare for publication in the next monthly issue of the Gulf Coast Gardner the article on gardening topics which the association has agreed to supply monthly.

The date of the September meeting was postponed a week in order to permit the delegate report on the state meeting; so it will be held September 23 at the club rooms of Blume

Tree System, just off Westheimer road.

After adjournment, Mrs. Griffing served refreshments to the twenty-five members present. H. Hutchinson was a visitor. Wilma Gunter.

MISSISSIPPI MEETING.

Cool weather at Jackson, Miss., made comfortable the ninety-one persons registered at the second annual convention of the Mississippi Nurserymen's and Florists' Association, August 20 and 21.

The opening business session consisted mainly of a report of the action of the state legislature on a bill introduced last spring to provide an appropriation for experimental work for the florists and nurserymen in Mississippi. Although the association was unable to secure a state appropriation at the past session, many suggestions were offered that might be helpful in the future.

The following officers were elected: President, Clark Sinclair, Meridian; first vice-president, J. B. Bealle, Greenwood; second vice-president, B. M. Barnes, Jackson, and secretary-treasurer, F. S. Batson, State College. Members of the executive committee elected were J. W. Beacham, McComb; Mrs. Louie Randall, Greenville, and I. H. Bass, Jr., Lumberton.

The first afternoon's program began with a talk on salesmanship by Les Taylor, Jackson. He pointed out

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Life in the Big City

Some of the members are claiming that me and Emil wasn't even at N. Y. They say we never took in the convention at all, because they never seen us standing around the lobby or in the bar where Emil always hangs out. If the members really want to know the truth, I can explain how it comes that we was in N. Y., but we didn't turn up at the convention. That wasn't my fault, as I can explain to the members. I will tell any of the members which wasn't there, that N. Y. is sure different than the other towns. One nurseryman which I was talking with the other day made me a little sore. He said, "Nuts, Chas., N. Y. is just like Chi. or Peoria only spread out more. The trouble is with you, Chas.," he said, "you been sticking around Riverbend, Ill., all your life."

Now I will prove to the members from I witness which me and Emil seen in N. Y. so that any of the members which is a doubting Thos. can see why N. Y. is different than Ft. Wayne, and how it comes that me and Emil didn't answer the roll call at the convention.

I could tell in advance there was a catch in it someplace when Emil decided at the last minute to go to the convention and take me along. "We will go to N. Y.," he says, "but we will cut down on expenses." That aint no new idea for Emil, so I says, "Do we go by the Chevy, or by the train?"

"We will go to work and go by the bus. There aint no use to waste money on a birth like some of the members. Nobody can sleep anyway," Emil says. "We will go a day early so we can meet the members at Niagara Falls."

It was so quick a idea on Emils part, I didn't have no time to check up. He decided to go at 3 P. M. and the bus left Chi. at 6:30. Emil got the time table at the filling station in Riverbend. He must of been looking at the wrong page because the bus didn't go within 500 miles of Niagara Falls. We went by the way of Wash. D. C., so we didn't see the members at Niagara Falls like we figured.

When we was getting near to N. Y. I says to Emil, "Have you got your

reservation at the hotel where the convention is at?"

"By the way, Chas.," he says, "we aint staying at the convention hotel. It will be too noisy there and besides I have got the name of a hotel, which I got from Geo. Burnett at the Briggs House at home. Geo. says the rates is only 25%. It is a hotel which caters to farmers and it is only 75c a night. There is a bath room on every floor Geo. says. He stayed there in 1915 when he was a delegate to the barbers convention. Thats when he had the barber shop where the A. & P. store is now. Anyway the members wont know if we are staying at the convention hotel or not." He fished around in his pocket book and come up with an envelope where he had written "Royal Hotel."

"What street is it on Emil," I says. "N. Y. aint like Riverbend," I says. "You got to have the street and number."

"Its right on the main street Geo. told me," Emil says, "it wont be no trouble to find it."

When we got to the bus depot it was 9:30 P. M. and steaming hot. Emil looked like he had been left out all winter in the rain. He didn't have no chance to shave and his blue serge suit was twisted up in a knot.

We got Emils' suit case, the old straw one with the broken strap, which the members have all seen at the conventions before. Emil brought a big package of samples of honey-

suckle. The paper was busted on one end, but we fixed it up with a piece of rope the porter give us. There we was on the sidewalks of N. Y. tired and dirty with no sleep at all the night before, and no idea where to go. Emil took off his coat and loosened his collar button and started gazing around at the tall buildings.

There was a gent walked past us a couple of times and looked us over. Finally he stopped and says, "Can you gents tell me where the bus depot it at?"

"Right here in front of you," Emil says. "We just come in from Ill. on the bus. We come by the way of Wash. D. C." he says.

"What do you know about that," he says. "Im from Chi. myself. Good old Chi. Yes, sir, just going home now. Im waiting here for my pardner. We just made a big haul. The cops are after us and we got to leave town in a hurry." He reached in his pocket and come up with two or three watches and some rings. "Come over here in this door way where the cops cant see us," he says. "I need cash right away to get out of town. Here is a genuine Waltham watch and gold chain. Worth \$40.00. Give me \$10.00 for it mister." He handed it to Emil. "Look here," he says. He took one of them diamond rings and scratched the plate glass window with it. "Genuine diamond worth at least \$100.00 Give me 5 bucks for it mister. I got to leave town tonight."

Emil was all excited but his long training in bargaining popped out on him again. "Ill give you \$7.50 for the watch and ring." The gent beat it with the cash, and Emil says, "That stuff is worth a hundred dollars if

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15 to 18 ins.	\$ 60.00	\$540.00
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its worth a nickle. Lets get a cup of coffee," he says.

We went into the coffee shop and sat down at the counter. Emil was looking over the watch and ring when the waiter come up.

"You boys been talking to Pittsburg Pete?" he says. "Lets see what he slipped you."

Emil handed him the stuff. "Watch," he says, "worth 25c for old tin. Ring from the dime store 10c, total 35c. It aint none of my business Mr., but watch out for street peddlers in N. Y. Pittsburg Pete owns a flat building in Brooklyn which he cleaned up off the easy marks coming in on the bus. He's a licensed peddler so you cant do nothing. What'll you have to eat gents?"

"Give me a plate of beans and a cup of coffee," I says.

Emil was fooling with the watch. "The darn thing wont even tick," he says. He pulled off the back and there wasnt no works in it. Just a piece of lead to give it the right weight.

"What'll you have Mr.?" the waiter said.

"Nothin" says Emil. "Just a glass of water."

The waiter give me a wink and I had a piece of pie and some more coffee.

It was almost 11 o'clock, and I was dead on my feet. "Wheres the Royal Hotel at Mr.?" I says to the waiter.

"Must be a joint," he says. "I never heard of it. Ill look it up in the phone book." He looked it up and shook his head. "Kind of a bad neighborhood," he says. He wrote down the address on a paper napkin. "Go over here two blocks and take a south bound subway. Get off at 19th St., and go 3 blocks west towards the river. Watch out for dark alleys in that locality."

We thanked him and started for the subway. Emil had a lot of trouble to get thru the turnstile with his samples, but we made it. It wasnt no time till a subway train come to a stop with a big clatter and screeching. We was pushed in and away we went.

I heard the guard yell, "Express train. No more stops to the battery." I found out after words that was hell-wards past 19th St., but we was hooked. We got off at the first stop and give a look around. It was pretty quiet, not a street car or nothing in sight. We sat down on the curb.

"I'd sooner be back in Riverbend, Emil," I says. "I'm all in."

Just then a taxi come along and stopped in front of us. "Taxi, gents?" he says.

"How much will it cost to take us to the Royal Hotel," I says, and I give him the paper with the address.

"2.00 in advance," he says, "that's a long trip."

Emil was going to argue him down to 50c, but I stopped him. "We got to get some sleep, Emil," I says. "Lets get going."

Emil went to sleep at once. We bounced around in side streets for half an hour and pulled up in front of a dump that didnt look good to me.

"Here she is," the taxi driver says. "Must be on the 3rd floor. First two floors is a wholesale fish store."

We unloaded our stuff and headed for a sign that said "Entrance Royal Hotel." There wasnt no elevator so we dragged up to the third floor. There wasnt nobody in sight, so we looked around until we seen a sign "Ring Bell for Night Clerk." After we rung for 5 minutes a sleepy eyed gent shuffled out of a back room and come up to the desk.

"1.50 each, in advance gents," he said with a big yawn and pushed a greasy book over at Emil.

"I aint paying over 75c," Emil says.

"O. K., then get out," the gent says. "Our rates is \$1.50."

"We'll take it," I says. I was too dead tired to argue. Emil was standing in a daze. "Where is the room at?" I says.

"Just follow me," the gent says. We went up to the next floor and finally at 20 min. to 4 in the A. M. we was installed in rooms 402 and 404. The rooms was only big enough for a single bed, but it looked good to

me. I flopped down without taking off my suit, and I was dead to the world in no time.

If any of the members has ever missed two nights sleep they can understand how it comes that me and Emil didnt wake up until 6 P. M. the next afternoon. In fact we wouldnt have come to if the room clerk hadnt pounded on the door to see if we was dead.

"6 P. M. starts a new day," he says. "If you stay in your room you got to pay \$1.50 for the next night."

I went into Emils room and finially got the old boy on his feet.

"I could sleep right thru another 14 hours," he says.

"We missed one day of the convention already," I says. "We better get organized if we expect to see any of the members. Are you going to spend another night in this here joint or have you got enough?" I says.

"We will go to work and go to the convention right now. Maybe we can find another hotel closer to the convention," Emil says.

We gathered up the baggage and got out on the street again. Emil was in favor of walking to the convention. After 6 blocks his feet begin to hurt on account of he aint used to wearing his Sunday shoes. So we sat down on the curb to think it over.

"Its a big mistake to have the convention in N. Y." Emil says. "I will sure put in a complaint to the Washington D. C. Office."

"It wouldnt hurt to get something to eat," I says.

The cops in N. Y. are the most suspicious people. We was just sitting there on the curb resting our feet in the gutter, when a police car drove up.

"What you got in that package?" one cop says to Emil.

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HARDY VERHALEN EVERGREENS

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inherent in the
variety rather than
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where it is grown

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Scottsville, Texas

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HARDY SHRUBS,
FOREST and SHADE TREE
SEEDLINGS.

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Amoor River North Privet
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Black Walnut Sweet Gum
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RHODODENDRONS,
AZALEAS
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Excellent nursery-grown, well budded stock. "B" tag on all shipments.

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DAPHNE CNEORUM

Per 10 Per 100
9 to 12 ins. \$4.00 \$35.00
12 to 15 ins. 5.00 45.00
Transplants from LAYERS, 100 for \$5.00; 1000
for \$40.00.

Larger plants and selected plants for forcing.

Eden Nurseries, Eden, New York

Old English BOXWOOD

Wholesale

10 ins. and up — Any quantity
BOXWOOD GARDENS
Mrs. R. P. Royer, High Point, N. C.

He who plants a tree,
He plants love;
Tents of coolness spreading
out above.
Heaven and earth help him
who plants a tree,
And his work its own
reward shall be.

ARTHUR DUMMETT, Mt. Vernon,
N. Y.



"It aint nothing but some bushes I brought from Ill." Emil says.

"Lets see the inspection certificate," the cop says. "Its unlawful to transport trees flowers and bushes into N. Y. without a certificate of inspection."

"This here is only some samples of honeysuckle, which I brought from my nursery. There aint no tag on it. We are a couple of nurserymen on the way to the convention," Emil says.

"You gents better come to the station," the cop says. "Get in."

Thats how it come we didn't have no hotel bill that night. Even at that it wasnt any worse than the Royal Hotel. We got out the next day about noon. They took the samples and fined Emil \$10.00.

"Emil," I says. "We would have been better off if we had of went to the convention hotel in the first place."

"We should be home and never have come to N. Y. at all. This will be a lesson to me. I aint never going to the convention again," Emil says.

As we was standing there on the sidewalk a big bus stopped and the door opened. "Get a move on and get in," the bus driver yelled.

So we got in and sat down. It was a big comfortable bus and it seemed good to sit down again.

We rode along for half an hour or so but we didn't see no sign of the convention hotel.

"Fair grounds. Far's we go," the bus driver yelled. "All out."

"Aint that lucky," I says, "here we are at the fair and now we wont have to come over after the convention."

When we was in the rose garden, I seen a nurseryman and his wife looking around. I know it sounds fishy but I couldn't think of his name, but he is a nurseryman from Minn.

"It was a great convention, wasnt it," he says. "Best I ever seen."

"You mean its all over?" Emil says.

"Well practically," he says. "I didnt stay for the last meeting, but all the boys will be cleaned out by this evening."

We walked on. "Must be the convention begun on Wed. instead of Thurs. like I figured," Emil says.

We was standing in front of the transportation booth. Emil was frantically going thru his pockets. "Gosh Chas," he says. "For a minute I thought I lost them bus tickets home. Then we would be in trouble."

LINING-OUT STOCK

SEEDLINGS

	100	1000
Abies arizonica, 4 to 6 ins.	\$3.00	\$25.00
Abies concolor, 6 to 8 ins.	3.00	25.00
Abies homolepis, 4 to 6 ins.	2.50	20.00
Abies Veitchii, 4 to 6 ins.	2.50	20.00
Berberis Thunbergii, 6 to 8 ins.	1.50	10.00
Berberis Thunbergii atropurpurea, 4 to 8 ins.	2.00	15.00
Cornus florida, 12 to 15 ins.	2.50	20.00
Cornus Kousa, 8 to 10 ins.	2.50	20.00
Crataegus Oxyacantha, 12 to 15 ins.	2.50	20.00
Cydonia Japonica, 12 to 15 ins.	3.00	25.00
Cydonia pygmaea, 10 to 12 ins.	2.50	20.00
Evonymus alatus, 4 to 8 ins.	2.50	20.00
Fagus americana, 18 to 24 ins.	5.00	45.00
Fagus sylvatica, 12 to 15 ins.	4.00	35.00
Ginkgo biloba, 6 to 8 ins.	3.00	25.00
Ilex crenata, 3 to 6 ins.	2.50	20.00
Kelreuteria paniculata, 12 to 15 ins.	3.50	30.00
Magnolia Kobus, 10 to 12 ins.	5.00	40.00
Picea excelsa, 6 to 8 ins.	2.00	15.00
Picea excelsa, 4 to 6 ins., Tpl.	3.00	25.00
Picea excelsa, 8 to 10 ins., Tpl.	4.00	35.00
Picea pungens glauca, 3 to 6 ins.	2.50	20.00
Pinus flexilis, 3 to 6 ins.	2.50	20.00
Pinus Mugho, 4 to 6 ins.	2.50	20.00
Pinus Mugho, 3 to 6 ins., Tpl.	4.00	35.00
Pinus Mugho, 6 to 8 ins., Tpl.	5.00	45.00
Pinus nigra, 10 to 15 ins.	3.00	25.00
Pinus resinosa, 4 to 6 ins.	2.00	15.00
Pinus resinosa, 6 to 8 ins.	2.50	20.00
Pinus Strobus, 4 to 6 ins.	2.00	15.00
Pinus Strobus, 6 to 8 ins.	2.50	20.00
Pinus sylvestris, 12 to 15 ins.	3.00	25.00
Pseudotsuga Douglasii, 4 to 6 ins.	2.50	20.00
Quercus Robur, pot-grown.	10.00	75.00
Syringa vulgaris, 4 to 6 ins.	1.50	10.00
Taxus cuspidata capitata, 4 to 6 ins.	3.00	25.00
Thuja occidentalis, 4 to 6 ins.	2.50	20.00
Thuja occidentalis, 6 to 8 ins.	3.50	30.00
Tsuga caroliniana, 2 to 6 ins.	3.00	25.00
Tsuga canadensis, 2 to 4 ins.	2.50	20.00
Tsuga diversifolia, 4 to 6 ins.	3.00	25.00
Tsuga diversifolia, 6 to 8 ins.	4.00	35.00
Viburnum theliferum, 8 to 12 ins.	5.00	45.00
Wisteria chinensis, 4 to 6 ins.	2.00	15.00

Complete price list of cuttings, grafts, etc., on request.

HESS' NURSERIES

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Mountain View, New Jersey

Ohio Summer Meeting

Members of Ohio Nurserymen's Association Entertained by Siebenthaler Co. on Day's Outing at Dayton, August 15

Over 100 members and guests of the Ohio Nurserymen's Association spent a highly enjoyable day, August 15, at the Moraine nurseries division of the Siebenthaler Co., at Dayton.

Early arrivals engaged in informal entertainment the evening before at the Hotel Van Cleve, and their tardy arising somewhat delayed the start next morning on an automobile trip through residential Oakwood to the Moraine nurseries. On the way a stop was made at Old River park, the 266-acre recreation ground for employees of the National Cash Register Co., where swimming pool, child's playground, picnic grounds, etc., are notably fine and well maintained. Oakwood contains many fine homes, and a stop was made at the Harrison place, planted and maintained by the Siebenthaler Co., as an example of the grounds in the district.

On arrival at the nurseries, the guests found twenty saddle horses from a neighboring riding academy ready to provide means for individual inspection of the plantings. The children and women kept the ponies on the go throughout the afternoon, the especial favorite being a dappled 5-gaited donkey. Turning on the spit was a 60-pound lamb, which, with a shoulder of beef already barbecued, was the pièce de résistance of a bountiful dinner laid out on tables underneath the trees adjoining the cabin. The grove and log cabin are in almost weekly use for picnic parties of local organizations to which the Siebenthaler Co. is a generous host. A variety of games provided diversion during the afternoon.

The 168 acres which comprise the Moraine nurseries are almost completely planted to nursery stock, kept in excellent condition by constant cultivation. The dust mulch was particularly valuable this season, when the drought in that area turned lawns brown and did much damage to the local farm crops. Large stocks of evergreens are grown, some to particularly big specimen size for occasional landscape use. Shade trees are also in large quantities, as well as the better varieties of shrubs. Some inter-

planting is practiced, evergreens being permitted to continue growth between rows of young shade trees, and some smaller items are treated similarly, that are benefited rather than retarded by the shade. Ample plantings were seen of the firm's specialties, such as *Viburnum Burkwoodii*, *Crataegus cordata*, *Juniperus chinensis* 18755, etc. Perennials, as well as some other stock, are grown at the old nursery, northwest of the city, where some of the visitors dropped in, particularly intrigued by Clarence Siebenthaler's remodeled home, a housewife's delight, with cupboards and closets galore and the latest conveniences for the comfort of the family and numerous guests there.

After the barbecue dinner, a brief business session was called to order by President Raymond Cook. John Baringer gave a short talk on the nursery inspection work and the Japanese beetle control program in Ohio, accounting for the \$14,000 of state funds provided for that purpose. Treatments have been at the rate of 500 pounds of arsenate of lead per acre this year, instead of 1,000 pounds per acre as formerly. A total

of 179.6 acres of land, including 1,149 separate parcels, were treated last spring, requiring a total of 89,904 pounds of arsenate of lead. Disbursements from the funds were \$11,936.84, leaving a balance for fall treatment of \$2,063.16.

Report of the A. A. N. convention at New York was given by Howard N. Scarff, Thomas Kyle and Howard Burton, from the Ohio delegation. Richard P. White, executive secretary, who was present with his family on his way to Chicago to attend the annual conference and school of association executives at Northwestern University, Evanston, reported briefly on A. A. N. activities.

Howard N. Scarff introduced resolutions authorizing the A. A. N. executive secretary to represent the Ohio body in legislative matters at Washington and also authorizing the president to appoint a member of the Ohio association to be a member of a national nurserymen's legislative committee.

Clarence O. Siebenthaler reminded members that the rate had been reduced in Ohio on workmen's compensation insurance. It was reported that the executive committee, meeting the preceding day, had decided to hold the winter meeting at the Deshler hotel, Columbus, the week of January 6, 1941.

John D. Siebenthaler, as chairman

*Pink Dogwoods, 12 to 18 ins., up to 15 ft.
Cercis canadensis ALBA, white Judas.
Rare.*

Lilacs, hybrids and species.

Azaleas and Andromedas.

Abelia Edward Goucher, new.

Buxus microphylla compacta, new and rare.

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And a general list of plants and trees.

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Rhododendrons

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NORTHERN COLLECTED EVERGREENS

Hardy, well rooted. *Abies balsamea*, *Thuja occidentalis*, *Tsuga canadensis*.

Priced per 1000. Cash.

2 to 6 ina... \$5.00 9 to 12 ina... \$12.00
6 to 9 ina... 9.00 12 to 18 ina... 20.00

FERNS—Maidenhair, Christmas, Royal, etc.

CYPRIPEDIUMS—*Habenaria*, etc.

NATIVE PLANTS—*Trillium*, *Lobelia*, *Pitcher Plant*, etc.

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BRIDGETON, N. J. Write for catalogue.

of the arrangements committee for the day, received the commendations of the visitors, and the Siebenthaler Co. was given a hearty vote of thanks and much applause.

With the introduction of a few out-of-state guests, from Michigan, Illinois, Indiana and Kentucky, as well as the venerable Wendell Paddock, former professor at Ohio State University, the meeting concluded.

NORTH JERSEY OUTING.

Thirty-two members of the North Jersey Metropolitan Nurserymen's Association attended an outing August 15 as guests of Russel Jacobus & Sons, Cedar View Farms, at 104 Alexander avenue, Montclair, N. J.

The morning was spent in informal discussions. Speakers included Raymond E. Harman, agricultural agent of Essex county; Jones Fawcett, agricultural agent of Passaic county; Dr. P. P. Pirone, of Rutgers University, and his assistant, Thomas Bender; Dr. Clyde Hamilton, of Rutgers, and Mr. Horenburger and R. Jacobsen, of the American Agricultural Chemical Co.

The visitors inspected the nursery with its large variety of perennials and annuals. At noon the host provided picnic lunch and refreshments.

In the afternoon Conrad Johnson, manager of the insecticide division of the Innes, Speiden & Co., New York, completed a demonstration of the use of Larvacide to kill insects and weed seeds in potting soil and the many other ways this material can be used, even to the extent of sterilizing newly made lawns of weed seeds before sowing.

The remainder of the day was spent in discussions and games.

CALIFORNIA INSTITUTE.

The Southern California Horticultural Institute met at the Mayfair hotel, Los Angeles, Cal., August 15, with Karl H. Karg, one of the organization's first members, as guest speaker. Mr. Karg recently returned from Honolulu, Hawaii, after two years spent there in charge of a large estate and on research concerning orchids for Armacost & Royston, Inc. In connection with his talk, Mr. Karg showed interesting colored pictures taken on the islands.

Earl Humphries has been named chairman of the lawn renovation committee of the institute.

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PRICED LOW FOR FALL DELIVERY

	Per 1000
1/4-in. and up	\$10.85
No. 1—3/16 to 4/16-in.	8.15
No. 2—2/16 to 3/16-in.	6.15
No. 3—about 2/16-in.	4.50

RUSSIAN OLIVE Seedlings

Hardy—Drought-Resistant

Size	Per 100	Per 1000
6 to 12 ins.	\$0.60	\$ 4.00
12 to 18 ins.	1.00	7.50
18 to 24 ins.	1.30	10.50
2 to 3 ft.	1.50	12.00
3 to 4 ft.	1.75	14.00

CHINESE ELM

Siberian Type

6 to 12 ins.	\$ 2.50
12 to 18 ins.	\$0.45
18 to 24 ins.	.65
2 to 3 ft.	.95
3 to 4 ft.	1.40
	12.75

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\$15,000 FALL SHRUB SALE

A Complete Assortment Available from Small to Specimen Sizes.

Sample Items

<i>Cotoneaster Divaricata</i> ,	25 or more
B&B, 3 to 4 ft.	.65 ea.
<i>Forsythia Spectabilis</i> ,	18c ea.
3 to 4 ft.	
<i>Kolkwitzia Amabilis</i> ,	35c ea.
3 to 4 ft.	
<i>Syringa Vulgaris</i> ,	20c ea.
2 to 3 ft.	

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Splendid Stock

Write for Special Quotations

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This Business of Ours

*Reflections on the Progress and Problems
of the Nurseryman—By Ernest Heming*

SALESMANSHIP.

We are apt to look on an order taker as a salesman, when often the best salesman rarely takes an order, but paves the way for the order taker. This is true in the department stores; the atmosphere of the store is produced by the salesman, who perhaps is rarely seen in public. The nurseryman seldom has a show window and pretty girls behind the counter; more often he has to trail his customers through the mud, and if they are women they get runs in their stockings, which is poor salesmanship. Good salesmanship on a nursery is to treat the visitors as guests, even if they do not buy anything—the opposite to the manner of the cranky nurseryman who, when asked by visitors if they might go into his greenhouse, inquired, "Do you want to buy something?" and when the reply was, "No, we just want to look at the flowers," said shortly, "Well, you look through the glass."

It is a better policy to be apparently generous with your time and even your stock in trade than to give the impression that your one object in life is to sell. Put the customer's interests first. It is a pretty good rule, even if it loses you a sale for the time being.

Sometimes it does not work out, as in the instance when I called on a prospect in Virginia who wanted some rhododendrons to plant along his drive. After viewing the situation and noting the outcropping of limestone rock, I told the prospective customer it would be a bad investment, as rhododendrons required an acid soil, and explained that after the initial display of bloom, the growth and flower would be annually less. My prospect's reaction was all that could be desired. He shook hands and complimented my honesty, but did not buy anything else in their place, as he wanted to talk it over with his wife. Visiting the locality a year or so later, I found a smarter salesman than I had sold the rhododendrons, perhaps to the wife.

Another memory comes back which will sound like a Frank Merriwell story or one that was told at Sunday

school, but happens to be an actual personal experience. At the time I was working for a florist and nurseryman in Colorado. I had charge of a range of glass. With other duties, I had to wait on customers. Too often, the two duties conflicted, and we disliked to see customers come into the place because when we were behind with the watering, we hated to drop the hose to wait on customers. There was one old lady who was particularly trying. She seldom bought much, but I did like to wait on her because she was so fond of plants.

One Sunday morning a rather imposing customer came to the greenhouse, bought one dozen chrysanthemums, asked me my name and said:

"Mrs. Wood is a friend of my wife, and she has told me about you. Would you like to go into business for yourself? I have some vacant land near the Santa Fe depot you can have. I will advance you all the money you want. My name need not appear in the transaction. Here is my card."

Upon investigation he proved to be president of the traction company, a millionaire, etc., and the offer was genuine.

Ours is a great business, and whether you are selling on the road or in the nursery, high-pressure salesmanship does not suit the class of people we cater to or the goods we sell.

Another story comes to mind which I cannot vouch for, as it was merely

told to me by another nurseryman. An enterprising young man was turned loose with a plate book as a nursery salesman, or perhaps we should call him a tree agent. In the plate book, among others, was a pretty colored picture of the tree peony, *Paeonia Moutan*, which, as every plantsman knows, is a bush rarely growing more than five or six feet high and a tricky plant to grow even for the professional gardener. After the young man got started on the road he really began to send in the orders, especially for tree peonies. When the sales manager investigated, he found the young fellow to be a fluent talker and that he was taking orders for the peonies to be planted along the street as shade trees!

E. H.

ST. LOUIS NOTES.

The latter part of August was exceptionally cool in the St. Louis area, with local showers at intervals, which has helped considerably to enliven plants both in the nursery and in permanent plantings. This unusual weather has caused some of the spring-blooming plants to put forth a second crop of flowers. This is especially true with the viburnums and many of the rosaceous plants. The lawns on private estates and public parks have taken a new lease on life and again are green after the short heat wave passed. A general rain is badly needed at this time, as the hot winds soon dissipated the effects of the few showers, which were much localized. If the cooler weather continues, lawn work will soon be in order, as local lawns suffered consider-



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Fruit Trees Deciduous Trees Evergreen Trees Shrubs Vines	Small Fruits Roses Hardy Perennials Plants Seeds, Bulbs, Tuber
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TAXUS CAPITATA4 to 5 ft., up to 9 to 10 ft.
HEMLOCK

5 to 6 ft., up to 8 to 10 ft.

Fine color, full and perfect for hedges or as specimens. Blocks have been treated and are certified as free of Japanese Beetle.

Prices Reasonable

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ably during the earlier part of summer. All in all, a mild summer, which is just passing, has left the nurserymen well stocked with choice plants.

The Landscape and Nurserymen's Association of Greater St. Louis held its last scheduled outdoor meeting Monday evening, August 12, at the home of A. Denning, state plant inspector, at Glenndale. The gathering was well attended by the members and their wives, and the latter were entertained by Mrs. Denning during the business meeting. Henry Baker, state entomologist, along with Bert Brayton, his assistant, helped Mr. Denning and Mr. Goff in sponsoring this meeting. After a short business session, the chairman, William Weber, turned the meeting over to Mr. Denning, who provided refreshments.

The Greater St. Louis Association of Gardeners held its August meeting at the Clayton Grill. President William Rebbe presided, and Sergeant-at-arms Bromley unfurled the American flag, assisted by William Schneider. A brief talk was heard on group hospital insurance for the members and their families. The following members won ribbons for flowers displayed at this meeting: Dave Schlaeger, first prize, for a vase of asters; Alfred Saxdal, second prize, for a vase of periwinkle, and Fred Deuser, third prize, for a vase of gladioli and Easter lilies.

A. Waldbart & Sons Nursery Co., on Natural Bridge road, in St. Louis county, has been awarded the contract to furnish and plant 36,295 units, consisting of 205 evergreens, 10,028 shrubs, 25,365 vines and 697 trees along highway 40 in St. Louis county, by the Missouri state highway department.

The Houlihan Nursery is undergoing improvements to the home place, which is located on the nursery grounds, on Mosely road at Creve Coeur, Mo.

Charles W. Fullgraf, forester and landscape engineer, Clayton, Mo., reports a good season of grading and road work, and he expects a good fall planting season.

The Dinsmore Tree Service reports a successful season for spraying and tree surgery.

C. F. G.

THE Claremont Nurseries, West Claremont, N. H., were started this season by John T. O'Leary, Alfred J. Appel and William P. Haubrich.

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2 to 8 feet

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Hybrid Rhododendrons and Taxus.

Hardy Azaleas, Mollis and Schlippenbachii.

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Diseases of Trees

*Latest Findings on Various Infections of Trade Importance
Reported in Recent Research Studies — By Leo R. Tebon*

TRUNK SAMPLING FOR DUTCH ELM DISEASE.

The present method of detecting the presence of Dutch elm disease infection requires the scouting of areas during a limited season when foliage symptoms of the disease are observable, the climbing of trees to secure twig samples and the culturing of samples in the laboratory. This method has a number of obvious disadvantages. For instance, adequate, accurate inspection of trees for foliage symptoms is difficult to accomplish in densely wooded regions, while the climbing of trees to secure samples is both time-consuming and expensive.

Tests have been made, therefore, of the practicability of detecting the disease by means of samples of wood taken from the trunks of trees. The wood discoloration characteristic of the Dutch elm disease occurs in the trunk as well as in branches and twigs, and from discolored trunk wood the fungus that causes the disease can be obtained by laboratory methods for definite diagnosis. A rapid method for sampling tree trunks, which could be followed by laboratory diagnosis, would provide a practical method of finding infected trees during the dormant season and would decrease the difficulties of sampling during the growing season.

The method of trunk sampling found satisfactory, according to a report by W. E. Ahrens, of the federal division of forest pathology, is simple. An arch-type leather punch of $\frac{3}{4}$ -inch, or preferably $\frac{1}{2}$ -inch, bore diameter is driven into the trunk of a tree with a mallet, given a downward thrust to snap off the wood core inside it and then removed from the tree. The wood core, when ejected from the punch, can be sliced into small sections and examined carefully for the presence of disease discoloration.

Wood samples taken in this manner from trunks can be obtained by a workman standing on the ground, who drives the punch into the tree at about his shoulder height. If the punch is driven into a given trunk a number of times, at about 6-inch

intervals around the circumference, it is about ninety-five per cent probable that the wood discoloration in an infected tree will be found in from one to three of the cores removed. For additional samples of the discolored wood, which are needed for laboratory diagnosis, other cores can be taken below and above the points from which the first discolored cores were obtained.

Because of the fact that discoloration from the disease usually occurs in recent annual rings, it is not necessary to drive the punch deeper into the tree than is sufficient to sample about five annual rings. After a core has been removed, wound dressing is forced into the holes to protect trunks from rot infection. Observation of wounds thus treated shows that after one growing season twenty-nine per cent had closed completely and seventy-one per cent had healed over to a greater or less extent.

The effectiveness of this method of trunk sampling has been shown by a double examination, both by the foliage symptom method and subsequently in the dormant season by this method, of about 6,000 trees in one area. Of the entire number of infected trees found in the region, 28.3 per cent were discovered by the trunk sampling method, and at less expense than the intensive summer scouting method. Other tests have shown

that the method can be used with about equally good results during the summer.

Little if any permanent injury appears to be done to trees by the removal of trunk cores. During the first growing season, if a $\frac{3}{4}$ -inch punch is used, twenty per cent or more of the holes can be expected to heal completely, or, if a $\frac{1}{2}$ -inch punch is used, fifty per cent or more of the holes. Presence of the holes in the trunks apparently affects not at all the annual growth of the trunk. On tested trees the difference between the annual ring width previous to and after sampling amounted on the average to seven-tenths of a millimeter, or about one-thirty-sixth of an inch.

L. R. T.

ARBORISTS MEET IN EAST.

E. S. Colprit, Dover, was elected president of the New Hampshire Arborists' Association at its annual meeting, August 13, at the University of New Hampshire, Durham, as part of the farmers' week program there. C. H. Colby, Milford, was elected

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vice-president of the group, and Myles Watson, Newington, was named secretary and treasurer.

Executive committee members include John H. Foster, Concord, state forester; R. Anderson, Beverly, Mass.; F. H. Bailey, Nashua; George E. Ellingwood, Arlington, Mass., and Thomas G. Marsden, Durham, specialist in ornamental horticulture.

Dr. W. H. Davis, pathologist and professor of botany at Massachusetts State College, told the meeting that a new bud blight of azaleas has been found in New England. The new fungus is related to the Dutch elm disease, he said.

J. G. Conklin, of the entomology department of the University of New Hampshire, declared that owners of shade trees and arborists should make sure the expense is justified before they spray shade trees for disease or insect control. Towns and cities can often afford to spray trees each year, he stated, but persons having only a few trees may not find the expense worth while.

The older a tree, the more expense is justified to protect it from insects or disease, Professor Conklin pointed out, declaring that a young tree, or a tree of a fast-growing variety is best destroyed and replaced by a strong healthy one. Estimated cash value of ornamental trees may be based on the simple formula of \$5 per circumference inch, he said. Arborists can prove themselves trusted helpers, he emphasized, by giving tree owners sound advice on the need for treatment.

Dr. Albert F. Yeager, head of the horticultural department of the University of New Hampshire, spoke on horticultural projects at the university that relate to arborists' service. He outlined thirty-five different projects in horticulture now being worked out by the state agricultural experiment station.

Kenneth E. Barraclough, extension forester, pointed out to the arborists that foresters have different problems and work in different ways, though both deal with trees. Basic training is the same for both arborist and forester, he said, but the arborist deals with the individual tree, while the forester deals with the wood lot or mass of trees as a unit. Both must remember, he declared, that what is practical for one is not necessarily practical for the other. B. J.

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Lulu A. Neely, oxblood-red; fine	1.75	15.00
May Sadler, salmon-pink, black base	1.50	12.00
Mrs. Perry, large, very hardy pink	1.25	10.00
Olympia, early double salmon	1.25	10.00
Perry's White, best white, pur. base	1.75	15.00
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Coming Events

ON THE CALENDAR.

The New Jersey Association of Nurserymen will hold a day's outing, September 12, at the Princeton Nurseries, Princeton, where William Flemer, Jr., will be host at a big beef barbecue. Nurserymen in the eastern area are invited. A recreational program will be provided in the spirit of the "Gay 90's."

The summer meeting of the New York State Nurserymen's Association will be held at the experiment station, at Geneva, Friday, September 20. Henry Maxwell, president, has appointed a committee to prepare the program, consisting of Schuyler Smith, of the W. & T. Smith Co., and H. B. Tukey, of the station staff.

CALIFORNIA PROGRAM.

The thirtieth annual convention of the California Association of Nurserymen will be held September 25 to 27 at the Hotel Oakland, Oakland. The program is as follows:

SEPTEMBER 25, 9:30 A. M.

Call to order by Frank W. Tuttle, president, followed by a welcome by the mayor of Oakland and a response by Roy F. Wilcox.

President's report.

Secretary-treasurer's report.

Reports of association chapters: Southern California Japanese Nurserymen's Association, Southern California Horticultural Institute, San Joaquin Valley Nurserymen's Association, Superior California Nurserymen's Association and Central California Nurserymen's Association.

Address by Gordon Laing, agricultural commissioner, Oakland.

Adjournment for "get-together luncheon" under the auspices of the two southern chapters.

SEPTEMBER 25, 1:30 P. M.

The entire afternoon session will be devoted to the affairs of the American Association of Nurserymen. Richard P. White, executive secretary, will be guest speaker. Avery Steinmetz, Portland, Ore., who was elected president in New York last month, will also speak. Representatives from the Oregon, Washington and California chapters will also be on the program.

The Investment Bankers' Association will present a speaker who will touch on subjects of both local and international interest.

SEPTEMBER 25.

All members and their wives will assemble at "Boots N Saddles," famous eating and entertainment establishment, where they will enjoy choice food and entertainment from Hollywood.

SEPTEMBER 26, 9:30 A. M.

Panel discussion on advertising.

Address by the director of agriculture.

Address by J. Lee Hewitt, chief, bureau of nursery service.

Adjournment for luncheon, which will be under the auspices of the two valley chapters.

The ladies' auxiliary will hold their luncheon in the Gold room of the Oakland hotel, where a short business session will be held, after which the women will renew old acquaintances and make new ones.

SEPTEMBER 26, 1:30 P. M.

Report of the legislative committee. Discussion.

SEPTEMBER 26, 8 P. M.

The annual banquet will be held at 8 o'clock in the Blue room of the Hotel Oakland.

SEPTEMBER 27, 9:30 A. M.

Address by a representative of the National Association of Manufacturers.

Report of nominating committee and election of officers.

The climax of the convention will be a picnic and barbecue at Durant park, Oakland.

TO MEET AT AUSTIN, TEX.

The annual convention of the Texas Association of Nurserymen, September 17 and 18, of which the program appeared in the August 15 issue, will be followed, on the afternoon of the second day, by a conference of nurserymen and regulatory officials of the southern peach belt. Richard P. White, executive secretary of the American Association of Nurserymen, will be in attendance, and an invitation has been sent to regulatory officials of the states in the lower half of the country.

B. M. Gaddis, of the federal bureau of entomology and plant quarantine, will be present from Wash-

ington, D. C., as will also Dr. L. M. Hutchins, who has conducted the research work for the bureau of plant industry at Brownwood, Tex., with reference to peach mosaic. Certain provisions of the standard peach mosaic quarantine, particularly the clause relating to plums, could be modified without in any way jeopardizing the objectives of the quarantine, in the opinion of many persons. Hence, a large attendance is expected at this conference.

The formulation of a suggested retail price list is to be brought up again at the Texas association meeting, and the following committee has been appointed to draw up such a list for consideration: B. E. Williams, Dallas, chairman; Harvey Mosty, Kerrville; J. M. Ramsey, Austin; P. A. Winkler, Beaumont, and J. A. Bostick, Tyler.

PARK EXECUTIVES TO MEET.

At the forty-first annual convention of the American Institute of Park Executives, to be held at the Hotel Statler, Cleveland, O., September 24 to 27, the future policies and operations of public parks in consequence of changes in our national life are to be discussed in the forenoon session September 24, at the joint meeting of park commissioners and executives September 26 and during the final full session of the institute the following day.

The regular business session will

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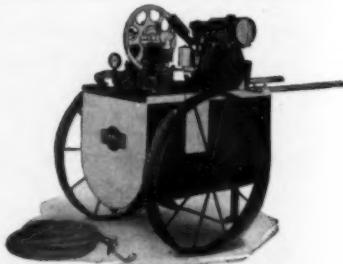
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open the convention Tuesday morning, September 24. In the evening the Midwest Institute of Park Executives will sponsor a symposium on education of park men, led by W. E. Rose, superintendent of parks at Hinsdale, Ill.; Roy Walker, of the Chicago park district, and Robert E. Everly, superintendent of parks, Glencoe, Ill. During the evening session Dr. J. H. Gourley, of the Ohio agricultural experiment station, will give his celebrated talk on "The Plant Parts We Eat," and a smoker with entertainment will conclude the evening.

Among the group meetings Wednesday morning, September 25, one on arborets and botanic gardens will be sponsored by Dr. Donald Wyman, of the Arnold Arboretum, chairman of the institute's standing committee on the subject. The principal speakers at the session on arborets will be Dr. C. Stuart Gager, director of the Brooklyn Botanic Garden, and Dr. E. D. Merrill, director of the Arnold Arboretum.

The afternoon will be devoted to a tour of Cleveland parks and other points of interest. The evening session will be under the auspices of the American Park Society, and among the three addresses to be given is one on "Floriculture for Municipalities," by Prof. Alex Laurie, of Ohio State University.

Prominent among the conferences Thursday morning, September 26, will be that of the horticulturists, who will hear Samuel N. Baxter talk on "New Plant Materials for Flower Borders," and another speaker on "Use of Bulbs for Park Plantings." P. J. van Heiningen, horticulturist of the New Haven park department, will preside at the group session following, at which William E. Fischer, superintendent of parks at Chagrin Falls, O., will talk on rock gardens.

At the full session in the afternoon, Dr. L. C. Chadwick, associate professor of horticulture at Ohio State University; Dr. Paul E. Tilford, of the Ohio agricultural experiment station, and Dr. John Monteith, Jr., of the greens section of the United States Golf Association, will be the principal speakers.

Friday afternoon, September 27, will be devoted to a demonstration of park equipment and a special tour of Cleveland parks, while an all-day tour of the parks in the metropolitan area is planned for Saturday.

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MAPLE, Norway, up to 3 1/2 ins. Transplants, extra select, spaced 7x7 ft.

POPLAR, Lombardy, up to 2 ins.

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BARBERRY, Thunbergii, up to 2 to 3 ft.

SPIRAEA, Vanhouttei, up to 5 to 6 ft.

APPLE, 2-year.

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New Books and Bulletins

FIRST GARDEN BOOK.

The earliest book on gardening to be published in the English language is said to be "A Most Briefe and Pleasaunt Treatyse, Teachynge Howe to Dress, Sowe and Set a Garden," by Thomas Hyll. Only one copy is in existence, in the rare book room of the British Museum, in London. For the first time it has been faithfully reproduced in the same small page size and in the same quaint spelling in which it originally appeared, in England, in 1563.

Under the title, "First Garden Book," it was issued in a limited edition of 287 copies, which was exhausted, and now a second edition of 266 copies has been printed, at \$2.50, by Violet and Hal W. Trovillion on their private press at Herrin, Ill.

Some of the instructions are quaint, but some of them reveal that gardening was well understood by the ancients, for writers of classic times are mentioned freely. The plants mentioned are chiefly herbs and vegetables, as might be expected, though a few cut flowers are included, but chiefly with mention of their medicinal applications.

"JUST WEEDS."

Readers of this magazine probably spend enough time on weeds without reading about them, but for anyone who wishes to learn the identity, habits and control of the common weeds of lawn, garden and farm fields, he will find the opportunity in an excellent book of well over 300 pages entitled "Just Weeds," published last month by Charles Scribner's Sons, at \$2.75.

After a preliminary tabulation of the weeds according to the places they infest, each one of 102 plants is clearly described to make identification easy, its habits and habitat are told and control measures are discussed. The book is written by Dr. Edwin Roland Spencer, professor of biology at McKendree College, and line drawings of full-page size of the weeds are supplied by Emma Bergdolt, a rural schoolteacher and student at McKendree College. Technical descriptions from Gray's "Manual of Botany" follow the popular discussions.

BULLETINS RECEIVED.

Pecans are the subject of two bulletins recently issued by the United States Department of Agriculture, Washington, D. C. Farmers' bulletin 1829, "Insects and Diseases of the Pecan and Their Control," occupies seventy-two pages, well illustrated. Circular 545, "Pecan Grafting Methods and Waxes," contains thirty-two pages, with a bibliography of nearly two pages included.

The Oriental persimmon is the subject of leaflet 194, recently issued by the United States Department of Agriculture and written by H. P. Gould, principal horticulturist, in the division of fruit and vegetable crops and diseases of the bureau of plant industry. Culture and uses are discussed, and sixteen principal varieties are described in this 8-page bulletin.

"Evergreens for the Home Grounds," by Laurence G. Holmes, contains twelve pages of simple information for the extension service of the college of agriculture at the University of Wisconsin.

The Connecticut state entomologist's thirty-ninth report, covering the year 1939, constitutes bulletin 434 issued by the Connecticut agricultural experiment station, New Haven, under date of June, 1940, containing 322 pages. A biographical sketch of Dr. W. E. Britton, who died February 15, 1939, prefaces the report, contributed by his successor

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as state entomologist, Dr. Roger B. Friend. The list of state inspected nurseries, a report of control of the gypsy moth and a lengthy account of the smaller European elm bark beetle are prominent in this thorough report.

The annual report of the agricultural experiment station at the University of Florida, Gainesville, for the year ended June 30, 1939, contains numerous short items on trees, nuts, soils, cover crops, etc., in the summaries of projects in its 200 pages.

CLUBS IN BOSTON SHOW.

The garden clubs will after all have an important part in the New England spring flower show. They have reconsidered their former decision not to exhibit and are coming in on a larger scale than ever, reports Arno H. Nehrling, exhibition manager. They will sponsor classes in flower arrangement, and they propose to outdo anything ever done along these lines in this country.

A committee known as the Massachusetts garden clubs exhibition committee, representing both the federated

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Birches, Chinese Elms, Flowering
Crabs, Hawthorns, Lindens, Norway
and Schwedler Maples, Mountain
Ash.

Combination carlots to Eastern dis-
tributing points afford minimum car-
rates.

Catalogue on request or Send your
Want List.

OREGON'S BEST SOURCE OF GOOD ROSES

is

PETERSON & DERING, INC.

Wholesale Rose Growers
Scappoose, Oregon

Write for List

ORENCO NURSERY CO.

Oreenco, Oregon
WHOLESALE GROWERS

Fruit, Shade, Flowering Ornamental
Trees, Fruit-tree Seedlings, Roses, Etc.
Very complete line of quality stock
Catalogue sent on request.

Rich & Sons Nursery

Hillsboro, Ore.

FRUIT TREES

Ornamental Trees Shrubs
Catalogue on request

and the nonfederated clubs, will be in charge. The schedule is being prepared and will be ready for distribution about October 15. Classes will be arranged for all types of flower arrangements, making it possible for the smallest clubs in New England to participate.

GRIFFINGS RETURN HOME.

W. C. Griffing, Ralph C. Griffing and wife and children returned home August 18 from an extensive automobile trip through the east, having been gone from Beaumont, Tex., for some six weeks. Ralph C. Griffing made many color pictures of the gardens at the New York world's fair, as well as of other gardens and estates in the east, to add to his already wide collection of colored pictures of landscape subjects.

After the A. A. N. convention, the Griffings visited in central New York, which was the former home of both Mr. and Mrs. W. C. Griffing.

Their return route had to be changed because of storm and floods in Tennessee and Louisiana.

YANKTON'S NURSERY.

Yankton, S. D., has one of the busiest nursery houses in the middle west, according to Howard Nichols, railway express agent there, in the Express Messenger for August. It is the House of Gurney, now in its seventy-fourth year.

Shipments from the firm this year showed an increase of 184.3 per cent over the year 1938, and an increase of sixty-four per cent over 1939. In the period March 28 to May 14 inclusive, Agent Nichols reports he secured 10,080 shipments. The largest day's shipments was on May 1, when 570 shipments were billed.

Due in large part to the business received from the House of Gurney, Yankton was awarded the general manager's trophy in its group for the month of April.

AIR-CONDITION SEEDS.

The federal soil conservation service is providing the nursery storage cellars at Pullman, Wash., with air conditioning to help preserve tree seeds over long periods of time.

Stored tree seedlings will be kept in a dormant state for long periods in controlled temperature of 40 degrees

Approximately a quarter of a million

ROSEBUSHES

grown annually.

Ninety-seven acres of Evergreen Shrubs

including
Arbor-vita Chamaecyparis Juniper
Spruce: Koster and Colorado Blue
Mugho Pine Yews, etc., etc.

Write for our catalogue.

Mountain View Floral Nurseries

Troutdale, Oregon
Leading grower since 1900

A. MCGILL & SON

FAIRVIEW, OREGON

Wholesale Only

GOOD WESTERN-GROWN NURSERY STOCK

Fruit Tree Seedlings
Flowering Ornamental Trees
Shade Trees
Roses

Grown right and packed right.

Combination carloads to Eastern
distributing points will save you
on freight.

A Complete Line of OREGON-GROWN NURSERY STOCK

Bechtel Crab
Cut-leaf Birch
Chinese Elm
Flowering Cherry
Laburnum Vossii
Mountain Ash
Paul's Scarlet Thorn
Prunus Blireana

DOTY & DOERNER, INC.

6691 S. W. Capitol Highway
Portland, Oregon

MAHALEB SEED

Fresh, local-grown, high
germination. Supply limited.

WASHINGTON NURSERIES
Toppenish, Wash.

NURSERY SEEDS

<i>Amelanchier canadensis</i> , the true Downy Shadblow	1/4 lb.	1.25	4.50
<i>Amelanchier canadensis</i> , collector's grade	.75	2.50	
<i>Amelanchier grandiflora</i> , Apple Shadblow	1.10	3.50	
<i>Amelanchier levis</i> , Alleghany Shadblow, northern type	1.10	3.50	
<i>Amelanchier ovalifolia</i> (Botrytis blub) the true Thicket Shadblow	1.25	4.50	
<i>Lonicera tatarica</i> , dry berries	1.10	3.50	
<i>Malus Aquifolium</i> , clean	.50	2.50	
<i>Malus baccata</i> , available in four varieties			
<i>Mundshurica</i> , white flowers, red fruit			
<i>Peking</i> variety, pink flowers, yellow fruit			
<i>Robusta</i> (hybrid <i>baccata</i>), pink flowers, red and yellow fruit			
<i>Sibirica</i> , pink flowers, red fruit			
All available in fresh fruit for fall planting, \$1.00 per lb., \$1.50 per 10 lbs.			
<i>Prunus cerasifera</i> , Myrobalan	.25	.75	
<i>Prunus Mahaleb</i>	.55	2.00	
<i>Pinus sylvestris</i> , Scotch Pine	.75	3.25	

For complete line of tree and shrub seeds, see our 1940-41 catalogue listing 2000 items.

F. W. SCHUMACHER

HORTICULTURIST

P. O. Box 131 Jamaica Plain, Mass.

DREER'S Autumn Wholesale Catalogue

Every up-to-date nurseryman should have a copy of this interesting and helpful 48-page catalogue of Dreer Quality Bulbs, Seeds, Greenhouse Plants, Climbers, Ferns, Roses, Perennial Plants and Sundries. Write for your free copy today.

HENRY A. DREER, Inc.
Philadelphia, Pa.

LAWN GRASS SEED

Packed to Bag 100 lbs.		
<i>Velvet</i> Lawn Mixture	112 lbs.	18.00
Ky. Blue Grass, extra fine	112 lbs.	18.00
Redtop, fancy silver seed	100 lbs.	12.50
American Rye Grass	100 lbs.	6.50
White Dutch Clover	150 lbs.	6.00

A. H. HUMMERT SEED CO.
2746-48 Chouteau Ave. St. Louis, Mo.

North Dakota and Montana Seeds

JUNIPERUS SCOPULORUM
and other forestry seeds
WILDFLOWER SEEDS AND NATIVE PLANTS

Write for wholesale trade list.

E. C. MORAN, Medora, N. D.

SEEDS

Tree and Shrub
Perennials

HERBST BROTHERS
92 Warren St. New York, N. Y.

provided by Carrier refrigeration units in three rooms of the storage cellar.

The installation, which was contracted for by the soil conservation service of the United States Department of Agriculture, is expected to be completed by September 15.

One of the storage rooms air-conditioned is 18 x 25 feet, while the other two are 12 x 18.

ALL-AMERICA ROSES.

Announcement of the 1940-41 awards has been made by W. Ray Hastings, secretary of All-America Rose Selections, Inc.

The highest-scoring variety was Charlotte Armstrong, by Armstrong Nurseries, Ontario, Cal., its color being cerise to spectrum red.

Other winners were World's Fair, by Jackson & Perkins Co., Newark, N. Y., a blackish-red floribunda or large-flowering polyantha; The Chief, by Armstrong Nurseries, rose in color with orange bases and begonia-rose on the tips of outside petals; California, by Howard & Smith, Montebello, Cal., with orange flowers of enormous size; Apricot Queen, by Howard & Smith, a coppery orange-pink; Dicksons Red, by Jackson & Perkins Co., a lively red color, and Flash, by Conard-Pyle Co., West Grove, Pa., an orange-scarlet climbing rose.

Information concerning these roses may be obtained by writing the secretary at box 675, Harrisburg, Pa. Color plate electros are available, as are photographs and color transparencies, at cost plus handling charges.

SHADE TREE CONFERENCE.

[Concluded from page 6.]

ranging for the A. A. N. convention two years ago evidently led to his being put into full harness again. The members of the individual committees were as follows:

Trade exhibits—Harry E. Malter, chairman; C. Edmund Smith, Harold P. Paul.

Field demonstrations—Arnold R. Toivonen, chairman; Joseph R. Witwer, Ralph W. Peterson.

Educational exhibits—Forrest C. Strong, chairman; Carl Fennier, Frank G. McInnis.

Transportation—Gerald R. Cox, chairman; C. D. Wolf, R. A. Henstock.

Publicity and attendance—D. F. Hayman, chairman; Charles G. Crawford, L. E. Ames.

Entertainment—Harry E. Malter, chairman; Al G. Brown, B. J. Manahan.

Ladies' program—Mrs. Harry E. Malter, chairman; Mrs. C. Edmund Smith, Mrs. J. M. Bennett.

CLASSIFIED ADVERTISING

Peonies: Tree and Herbaceous, best varieties. Oberlin Peony Gardens, Sinking Spring, Pa.

MAZZARD CHERRY AND PEACH PITTS. Will be offered as usual again this season. Write for prices.

WAYNESBORO NURS., WAYNESBORO, VA.

EVERGREENS.

Norway and White Spruce. Also specimen Colorado Blue Spruces. THE EVERGREEN NURSERIES, Lowell, Ind.

BARBERRY THUNBERGII.

4-yr., transplanted, heavily branched. 18 to 24 ins., \$12.00 per 100; 2 to 3 ft., \$17.50 per 100. WAYNESBORO NURSERIES, INC., Waynesboro, Va.

DELIGHTS FOR LADIES.

Earliest old English cook book and herbal, published after 330 years. Also First Garden Book Each, \$2.50. Free catalogue of garden books. TROVILLION PRIVATE PRESS, HERRIN, ILL.

CEDAR SHINGLE TOW.

Baled in carlots, F.O.B. Virginia mill, \$7.00 per ton for shipment prior to October 1. After October 1, \$8.00 per ton. WAYNESBORO NURSERIES, INC., Waynesboro, Va.

NEW DAYLILIES.

(Hemerocallis.)

Dr. Stout's Hybrids exclusively. New colors, new types, new seasons. Get to know them and the possibilities for your trade by writing for our catalogue and trade list.

FARR NURSERY CO.

Box N, Weiser Park, Pa.

DIANTHUS SILVERMINE.

New glistening white sport of Bentezia. Hardy vigorous grower, with healthy foliage. Valuable in the garden, or forced in pots for Easter or Mother's Day. 2 1/4-in. potted plants, \$2.50 per 10, \$18.00 per 100.

NORWALK PERENNIAL GARDEN, Main Ave., Norwalk, Conn.

BOXWOOD SEMPERVIRENS.

Sheared specimen plants for immediate delivery at the following low prices:

30 to 36 ins., in lots of 10 or more, \$2.40 each;

36 to 42 ins., \$3.25; 42 to 45 ins., \$4.75.

Write for complete wholesale price list, offering numerous other items.

WAYNESBORO NURSERIES, INC., Waynesboro, Va.

NOW SHIPPING

MUSCARI, NARCISSUS AND OTHER FALL BULBS.

Send Us Your Want List
on these, as well as
Hemerocallis and Peonies.

GEO. W. HUNTER, Grower
R. F. D. 4, DOWAGIAC, MICH.

HELP WANTED

Landscape salesman, must be able to draw his own plans. Best of references required. Wiegand's Evergreen Nursery, 26th and Kessler Blvd., Indianapolis, Indiana.

SITUATION WANTED

Graduate landscape architect, with experience in landscape design, construction and maintenance work, desires position offering an opportunity for young man of ability and character.

Address No. 168, care American Nurseryman, 508 S. Dearborn St., Chicago, Ill.

NEW PRONOUNCING DICTIONARY

of Plant Names and Botanical Terms

64 pages, 3000 names, 25¢ per copy

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508 S. Dearborn St., Chicago, Ill.

Vita-Flor
VITAMIN B₁ PLUS OTHER KNOWN VITAL PLANT GROWTH FACTORS
Easy to use
No Refrigeration

A new product to meet new demand of farmers, nurserymen and home gardeners. VITA-FLOR is more than Vitamin B₁. Experiments have proven VITA-FLOR to be more helpful than Vitamin B₁ alone.

Write today for full details, price lists, and information about liberal dealer discounts on VITA-FLOR in handy eye-dropper bottle.

NATIONAL OIL PRODUCTS COMPANY
HARRISON, NEW JERSEY

Why not see for yourself what Red Spiders and scale insects look like ... THROUGH THIS POWERFUL



This fine microscope is ready at all times for the examination of stamps, textiles, photographs, documents, paint surfaces, and identification and study of Insects, Fungi and Plant Diseases.
4 1/2" long, 25 power. Solid Brass. Postpaid in U. S. A., \$2.00; 3 for \$5.00.

HORTICULTURAL SERVICE
Box 5613, Dept. A CLEVELAND, O.

BUDGING SUPPLIES

- Twelve sizes of Rubber Budding Strips regularly carried in stock. Samples free.
- Complete line of Budding Knives with fixed and folding blades, and including several imported patterns. Write for Catalogue.

A. M. LEONARD & SON
Established 1885 PIQUA, OHIO

USE Duratex TREE WRAP
FOR PROTECTION AGAINST BORERS, BEETLES, RODENTS, FROST & SUNSCALD
CHARGE BAG CO.
CHAGRIN FALLS, OHIO

BERRY HOOK
FOR CUTTING OUT CANE
IN RASPBERRY, BLACKBERRY,
LOGANBERRY, etc.
Ask your dealer or write

ANDERSON OPEN HOE CO.
215 Orcas St. Seattle, Wash.

CATALOGUES RECEIVED.

Harmel Peony Co., Berlin, Md.—Twenty-ninth annual catalogue, for fall, 1940, of "Peony Aristocrats," containing helpful comments on better varieties; 24 pages and cover, 4x9 inches.

Wassenberg's Peony & Iris Farms, Van Wert, O.—Wholesale price list of peonies and irises, containing lengthy lists in 24 pages and cover, 5 1/2x11 inches.

Hoodacres Gardens, Troutdale, Ore.—Delphinium information book, containing cultural information and comments, as well as descriptions and prices on originations of Charles F. Barber; 40 pages and cover, 5 1/4x7 1/2 inches.

Robert Wayman, Bayside, L. I., N. Y.—Wholesale price list of irises and hemerocallis, including many forms and a long list of irises, 20 pages, 4x8 1/4 inches.

Lake City Nurseries, Lake City, Minn.—Wholesale price list of trees, shrubs, vines and perennials; 12 pages, 4x9 inches.

De Wilde's Rhodo-Lake Nurseries, Shiloh, N. J.—Mimeographed price list of rhododendrons, azaleas and ericaceous plants bound in ornamental mimeographed covers like monthly bulletin to customers.

Edgar L. Kline, Oswego, Ore.—Illustrated descriptive price list of lilies for garden and greenhouse, with supplementary wholesale price lists, 64 pages and cover, 5x8 1/4 inches.

William Borsch & Son, Inc., Maplewood, Ore.—Wholesale trade bulletin of alpines and other perennials, in circular form, 8 pages, 4x8 inches.

Stern's Nurseries, Geneva, N. Y.—Fall bulletin, dated September, 1940, featuring mainly fruit trees and roses, in circular form, 6 pages, 4x9 inches.

I. E. Ilgenfritz' Sons Co., Monroe, Mich.—Wholesale price list, dated August 15, of general nursery stock, supplies and tools, 68 pages and cover, 5x8 inches.

Tingle Nursery Co., Pittsfield, Md.—Wholesale price list for fall of lining-out and specimen stock, 48 pages and cover, 4x9 inches.

Willis Nursery Co., Ottawa, Kan.—Early fall price list, dated August 20, of fall bulbs, lilies, peonies, perennials and evergreens, 8 pages in circular form, 5 1/2x8 3/4 inches.

Gerbing's Azalea Gardens, Fernandina, Fla.—Catalogue of camellias, with beautiful illustrations, many in color, also some azaleas, 28 pages, 6x9 inches.

Earl E. May Seed Co., Shenandoah, Ia.—Fall catalogue of nursery stock, bulbs and seeds, printed in gravure in newspaper form, 12 pages, 10 3/4x15 1/2 inches.

E. C. Moran, Medora, N. D.—Six mimeographed pages contain wholesale price list, dated August 15, of North Dakota and Montana forestry and wild flower seeds and native plants.

Chandler Landscape & Floral Co., Kansas City, Mo.—Thirty-five mimeographed pages comprising price list, chiefly of evergreens, but including some deciduous trees, shrubs and perennials.

FROM McHutchison & Co., New York, comes announcement that W. E. Michel, for some time secretary of the company, is no longer connected with it.

A New Weatherproof
METAL PLANT MARKER



"IT WEARS A CAP"

We highly recommend this beautiful all-year marker for your Fall and Spring plantings.

Made of durable metal; baked enamel, green finish. Write on top of stake and slip on plastic window cap. You have an enduring marker, with no fade-out of your writing. Stake is 7" tall, writing surface 1 1/4"x2 1/2". Shipped Prepaid. 12 markers \$1.00; 25 markers \$2.00; 50 markers \$3.75; 100 markers \$7.00.

FOR GREENHOUSES & NURSERIES

We can supply a beautifully formed stake, two feet long, made of cold rolled steel, finished in green baked enamel matching the markers. It possesses great rigidity and will last for years. You simply slip the plant marker into top of stake which holds it securely. For a stake and marker combined, it can't be beat.

12 for \$1.75; 25 for \$3.50;
50 for \$6.50; 100 for \$12.00

Markers and Stakes priced separately. 25% discount applying on markers and stakes to owners of greenhouses and nurseries and for resale.

Send Orders To

SMITH INDUSTRIES
XENIA, OHIO

WOOD LABELS

For Nurserymen

DAYTON FRUIT TREE LABEL CO.

Ray and Kiser Sts. DAYTON, O.

LINER PINES, SPRUCES and FIRS

Field Run

4-year Transplants.

25 trees, \$2.25;
100 trees, \$6.50;
1000 trees, \$28.00.

Trees shipped September 1 to October 15. Price list and sizes on request.

WALTER A. STUDLEY, NURSERY DEPT. AN, Fennville, Mich.

O. H. PERRY NURSERY CO.

BOX 545

McMinnville, Tenn.

Tree Seedlings, Flowering Shrubs, Evergreens, Vines and Ferns.

Write for Price List.

SUPPLIES — TOOLS



FOR Tree Surgeons Landscape Men Nurserymen - Growers

Send today for a free copy of the
— BLUE BOOK —

The most descriptive and complete
catalogue listing the largest and most
select stock available.

AMERICAN FLORIST SUPPLY 1335 W. Randolph St. CHICAGO

3 FAMOUS PRODUCTS

C. P. O.—The safe spreader for bet-
ter control of Lace Bug, Red Spider,
Juniper Scale, Lilac Scale, Pine Leaf
Scale, Spruce Gall Aphid.

CRYSTAL BORER REPELLENT
For most species of borers on deciduous trees. Apply as protective measure before adult moth lays eggs. Used by leading tree companies.

CRYSTAL NO-DRI
A scientific wax emulsion. Can be applied with spray equipment. For use on many varieties of transplants to reduce mortality. Retards and reduces loss of moisture. Permits transplanting out of season.

Write for free booklets

Crystal Soap & Chemical Co., Inc.
Department AN
6300 State Road, PHILADELPHIA, PA.

**GROW MORE, BETTER
VEGETABLES, FLOWERS
WITH
ROTOTILLER**
Trade Mark Reg. U.S. Pat. Off.

Once over with ROTOTILLER prepares ground for planting. Fast rotating tines plow, disc, harrow, smooth—in one operation. Makes unexcelled deep seed bed. Breaks hard sod. Most efficient for cultivating; used by leading growers. Easy to handle; fully guaranteed. 1 to 10 h. p.

Write for FREE 44-page catalog.

ROTOTILLER, INC., TROY, N. Y., DEPT. N

ASBO Nail-On Steel Box Straps

Black and Galvanized.
Cut to size. Ready to apply.
No waste. No tools required.

Write for prices. Enjoy the saving.

American Steel Band Co.
Bowman Bldg. Pittsburgh, Pa.

TREE SUPPLIES

Tabor's Tree-wound Dressings
for treating tree injuries, etc.

Tree Bracing Rod, Screw Hooks and Cable
at a substantial saving. For listing, write
ROLLIN H. TABOR CO., Mt. Vernon, Ohio

OBITUARY.

George Bullen.

George Bullen, owner of Penn Square Nurseries, Norristown, Pa., passed away at his home August 21.

Coming from midland England some thirty or more years ago, he was superintendent of the extensive grounds of W. Frazer Harris, Chestnut Hill, Pa. Leaving there, he was associated with Adolf Muller, at the DeKalb Nurseries, Norristown, Pa.

During the past twelve years he had carried on an active business on his own compact nursery.

He leaves a widow and two married children. James Bullen, the son, will carry on the business in the same efficient manner. Edwin Matthews.

O. E. C. Robinson.

O. E. C. Robinson, Hatboro, Pa., died August 15 after an illness of several months affecting his heart.

With his brother, Penrose Robinson, who died in 1930, he had for several decades conducted the printing business of Robinson Bros., publishing county weeklies in northern suburbs of Philadelphia. About fifteen years ago they became the principal owners of the National Nurseryman, which they published and printed until its sale to the American Nurseryman, with which it was merged in October, 1939. He leaves a daughter, Miss Florence Robinson, who had capably assisted him of late.

Arthur Cann.

Arthur Cann, San Jose, Cal., died from a heart ailment August 11, at the age of 65. Born in England, he came to America in his youth and had been a nurseryman and florist at San Jose for about thirty years. Surviving are his widow, two daughters and a stepdaughter.

Edwin K. Mooney.

Edwin K. Mooney, retired nurseryman, Madeira, O., died August 13 at his home after a brief illness, at 74. A native of Cincinnati, Mr. Mooney had been engaged in the nursery business for over fifty years, until his retirement in 1938. He leaves a sister and two brothers.

AN outing of the Horticultural Club of Boston was held August 15 at the Kelsey Nurseries, East Boxford, Mass., with a lobster dinner.

PLATE BOOKS

for Nurserymen

Book A. Illustrates in full color 235 standard nursery items, brief description, substantially bound. Price in small lots, 65¢ each.

Book B. Condensed edition, 120 items illustrated in full color. Price in small lots, 30¢ each.

Descriptive Nursery Catalogue

Nicely illustrated, 48 pages and cover. 15¢ each in small lots.

Will send sample copy of each on receipt of \$1.00. Cash with order.

A. B. MORSE COMPANY
St. Joseph, Michigan

BARTLETT PRUNERS

Cut *Easier*



No. 999 \$3.25 Prepaid



TREE SURGERY
SUPPLIES
TRADE MARK
COKEPOUND
BARTLETT MFG. CO.
3018 E GRAND BLVD.
DETROIT, MICH.



In Carpenter Nursery Twines

Carpenter twines are priced so that you get the most for your money in length and strength. Jute, Sisal, Java, Cotton, etc. Write us about your particular need, or send a sample of what you are now using for quotation. There is no obligation. Ask for our free booklet, "Knots the Sailors Use."



Free BOOKLET

GEO-B-CARPENTER & Co.
440 N WELLS ST
CHICAGO, ILL

DESCRIPTIVE PLATE BOOKS

Book No. 1. 80 Colored Illustrations, 50¢
Book No. 2. 160 Colored Illustrations, 75¢

PROCESS COLOR PRINTING CO.
701 Searle Bldg. Rochester, N. Y.

BALED CEDAR SHINGLE TOW

Carload Shipments

Buy Direct from Producers

Connor Lumber & Land Co.
Laona, Wisconsin

CLARK GARDNER NURSERIES

Osage, Iowa

Originators of patented SEMI-POTTED PLANT AND BULB PACKAGE for over-counter trade. Has WATERING TUBE and other unique features.

Those Wooden Plant Bands

Those young plants coming on now—will be well taken care of if you use these new **Spruce Veneer Plant Bands**. Always ready for instant use for any size plants. Priced moderately, these bands are made in sizes from $1\frac{1}{4} \times 2\frac{1}{4}$ inches deep to 6x6 inches—also with bottoms from 4 inches up.

If not familiar with these, write at once for full set of samples and descriptive circular with full information.



Groff Ball
INC.
WEST CHICAGO
ILLINOIS
"Flower Seeds for Nurserymen"
Send for Catalogue



Patent No. 2073695

MAKE MORE PROFIT—Sell Your Roses, Perennials, Shrubs, Vines and Fruit Trees Started and Growing in

Cloverset Plant Pots

Nursery Stock grown in Cloverset Patented Pots can be sold and planted without wilt to bud or bloom any time during the hot Summer months. Hardy Chrysanthemums grown in Cloverset Pots will make money for you next Fall.

Write today for free illustrated circulars and testimonials from users of these pots. Carton of samples by mail, 25¢.

CLOVERSET FLOWER FARM
ERNEST HAYSLER and SON
10520 Broadway KANSAS CITY, MO.

Write for information on
AUTOMOTIVE TREE MOVERS
TREE MOVING CART
WHEELED EVERGREEN CARRIER
NURSERY HAND TRUCK

Nurseries in all sections of the United States are using our equipment.

THE GARDEN SHOP, INC., 4819 Mission Road, Kansas City, Kan.

**LABELS
FOR
NURSERYMEN**
**THE
BENJAMIN CHASE
COMPANY**
DERRY, N. H.

RAFFIA

A small supply of all three standard brands on hand.

GOODRICH
Rubber Budding Strips
All sizes.

NURSERY SUPPLIES
Write for prices

THOMAS B. MEEHAN CO.
DRESHER, PA.

ARIENS-Tiller
The American
TILLAGE COMBINE
3 MODELS TO FIT
EVERY NEED
ARIENS CO.
Box 710 Brillion, Wis.

SHINGLE TOW

Carloads or Local Shipment

MORSE SHINGLE MILL
Morse, Wis.

Thank You!

It was gratifying to hear all the complimentary things you said at the Convention about TRANSPLANTONE and ROOTONE.

Better than the compliments, however, was your assurance that so many nurserymen are making two additional profits from these items by:

1. Using them for practically all nursery operations.
2. Selling them to customers.

IN THE NURSERY

For every propagating operation with seeds, cuttings or grafts—ROOTONE, The Plant Hormone Powder, will give you a higher percentage of strikes, even with difficult species. The resulting plants also will be stronger because they will have larger and more vigorous root systems.

TRANSPLANTONE follows where ROOTONE stops. It pays always to use this vitamin-hormone powder in solution as directed, on every plant that you move. Apply to shrubs, seedlings, trees, rosebushes and all perennials. After transplanting, continue to water with the weaker TRANSPLANTONE solution—as directed. You will have superior, stronger plants that will stand shipment better.

TO YOUR CUSTOMERS

TRANSPLANTONE and ROOTONE are now so widely known and used that your customers will want regular supplies of both. Keep them on display in the 12-unit cartons and call the attention of your customers to the value of using them regularly on all garden plants and lawns. This will mean an extra profit to you.

ROOTONE

Reg. U. S. Pat. Off.

¼-oz. pkt. (list), 25¢

2-oz. jar (list), \$1.00
(12 in display carton)

1-lb. can (list), \$5.00



TRANSPLANTONE

Reg. U. S. Pat. Off.

1-oz. can (list), 50¢
(12 in display carton)

3-oz. can (list), \$1.00
(12 in display carton)

1-lb. can, \$4.00



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Horticultural Division A-18

Ambler, Pa.